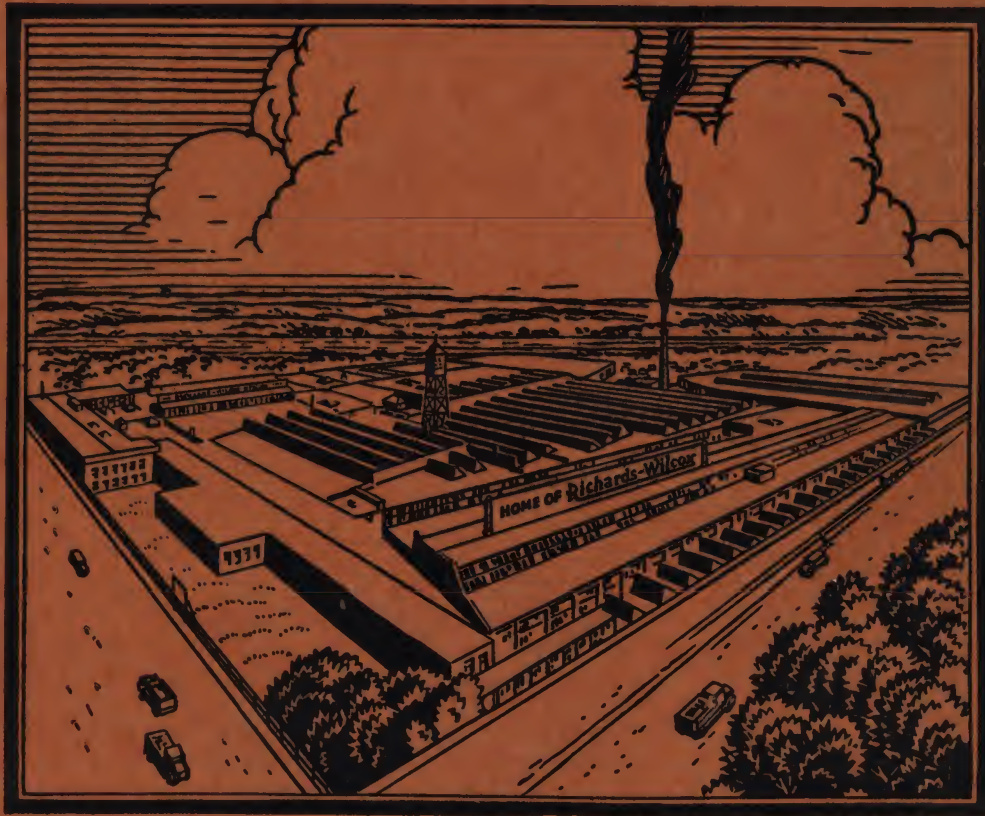


# Richards-Wilcox

## Hardware

### for Modern Door-Ways



**Richards-Wilcox Mfg. Co.**

AURORA, ILLINOIS., U. S. A.

BRANCHES IN IMPORTANT CITIES

GENERAL CATALOGUE NO. 45









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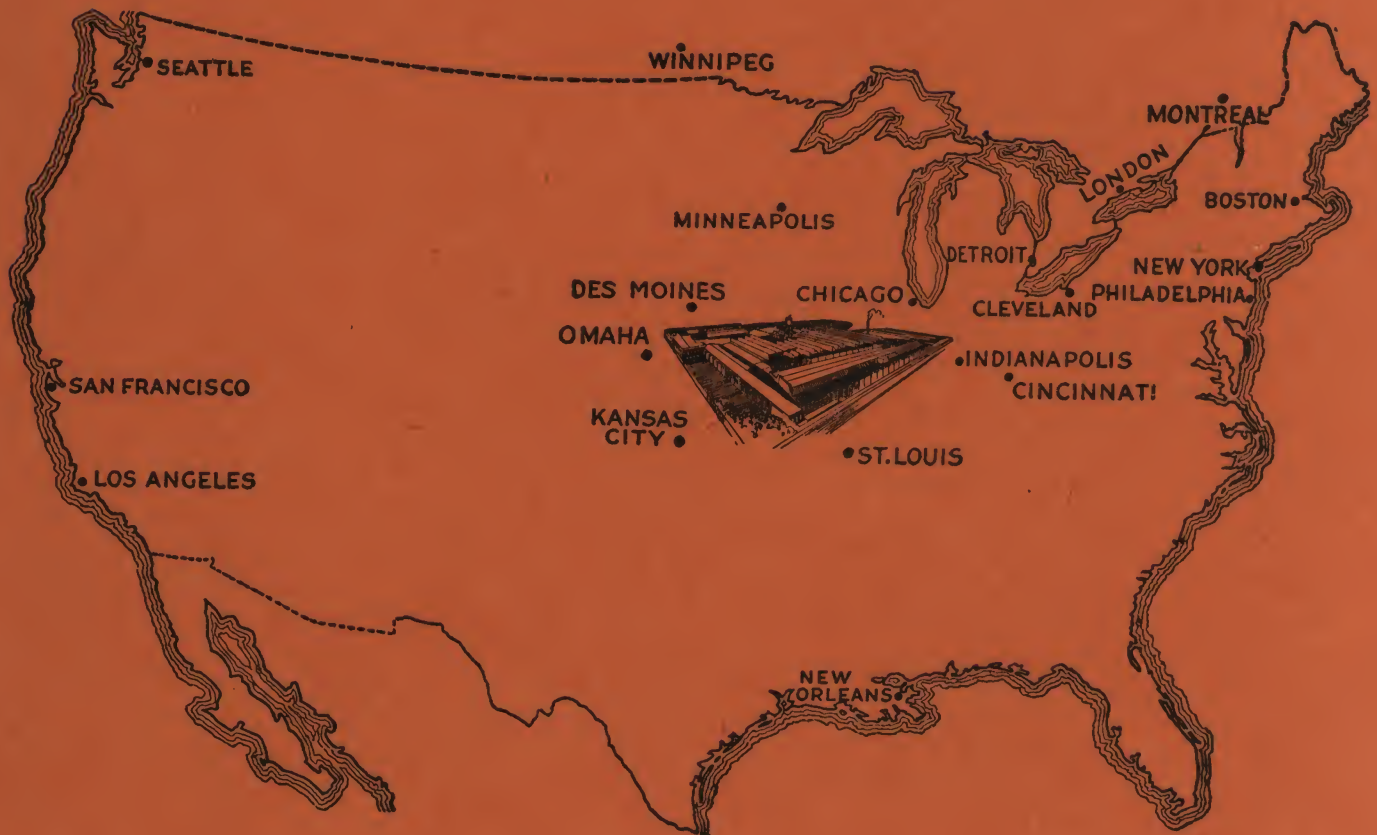
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## SERVICE from Sea to Sea



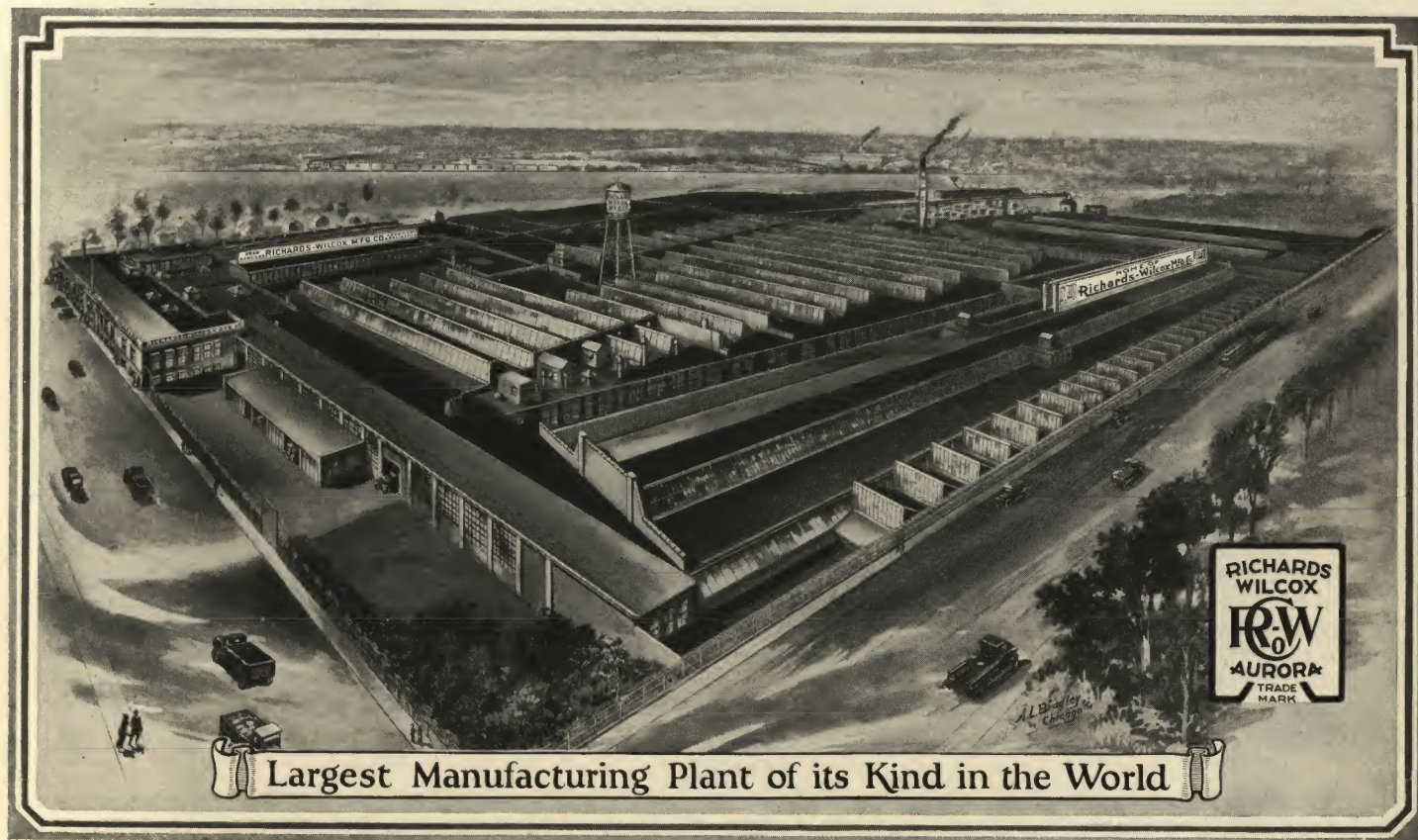
No matter where you live, a Richards-Wilcox branch office is not far distant. Look upon this office . . . . . and make free use of the intelligent, whole-souled SERVICE which its staff stands ready to give you.

We, of the Richards-Wilcox organization, are not content to merely make and sell quality hardware. We want to help the entire nation to make the best use of products which are recognized as the best of their kind. That is why we maintain from sea to sea a SERVICE which is yours without cost or obligation.



# General Catalog

No. 45



## COMPANY OFFICIALS

W. H. Fitch.....President and General Manager  
Lee Mighell.....Vice-President

Milton D. Jones.....Secretary and Treasurer  
P. L. Hoffman.....Superintendent

## BRANCH OFFICES

New York City.....85 Walker Street  
Philadelphia.....507 Arch Street  
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Detroit.....2457 Woodward Ave.  
Cleveland.....459 Hippodrome Annex  
Indianapolis.....1939 N. Meridian Street  
Cincinnati.....512 Provident Bank Bldg.  
St. Louis.....2006 Locust Street  
Des Moines.....619 Hubbell Bldg.

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Minneapolis.....321 Plymouth Bldg.  
Omaha.....City Natl. Bank Bldg.  
Kansas City.....216 East 10th Street  
New Orleans.....616 Hibernia Bank Bldg.  
Los Angeles.....408 So. Spring St.  
San Francisco.....625 Market Street  
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## Canadian Plant

Richards-Wilcox Canadian Co., Ltd.....London, Ont.  
Branch Offices at Winnipeg and Montreal

## MAIN OFFICE AND WORKS

**Aurora, Illinois, U. S. A.**



# Notes of Importance

## **Destroy Obsolete Catalogs**

The information contained in this book supersedes all information given in any of our previous general catalogs. If you have any of these obsolete catalogs on hand, be sure that they are immediately destroyed. Ordering from them will, in many cases, result in confusion, delay and dissatisfaction; due to changes in material, catalog numbers and prices.

## **Ordering**

Be sure in ordering to use the Catalog Number, also class and size of goods to avoid errors. State how you want the goods sent, by freight, express or parcel post. Under no circumstances do we allow express charges or parcel postage.

## **Freight Rates**

Freight rates from Aurora are practically the same as from Chicago, Ill. All goods are packed in accordance with railroad specifications, which insures the lowest legal freight rate.

## **Shipping Facilities**

Aurora is thirty-eight miles west of Chicago, located on the main line of the C. B. & Q. Ry. (Hill System). C. & N. W.; E. J. & E. (known as the Outer Belt Line), and C. M. & G. Ry. Co. These lines assure us unsurpassed shipping facilities to all points.

## **Prices**

Prices subject to change without notice. Net price sheets furnished on application. Estimates furnished on special work.

## **Terms**

Unless otherwise specified or agreed upon, all bills are payable within sixty days net, or 2% in ten days from date of invoice, in funds current in New York or Chicago. Do not send us personal checks, as banks charge us exchange on same. For accounts not paid at maturity, we will draw at sight after giving notice of our intention.

## **Deliveries**

Deliveries of all orders are subject to delay due to strikes, fire, or other causes beyond our control, and we will not be liable for any loss or damage resulting therefrom. The prices are always to be understood to be F. O. B. cars at Aurora, Ill., except where otherwise specified or agreed upon. When prices are quoted, delivered, it refers to the freight charges only and not the safe delivery of the goods. Our responsibility as shipper ends with the delivery of goods at the railroad station or wharf, after proper shipping receipts have been issued to us. Parcel post packages sent at purchaser's risk, unless we are requested to insure.

## **Claims**

Claims for errors and omissions must be made within five days after receipt of goods. Errors are made by the best of us and we stand ready to correct at any time, errors on our part, and expect our customers to accept liability for their own mistakes.

## **Returned Goods**

Do not return goods to us unless you have our permission to do so. We insist on express or freight bill of lading, on all return shipments. When writing, mention our invoice number and date on which goods were billed to you. Upon arrival of returned goods in good condition, transportation charges prepaid, we will render credit for the value of such material, less 10%, which is to cover the expense of handling, drayage, inspection, refinishing, etc. When goods are special, their return cannot be authorized. All goods returned without authority from us will be refused.

## **Guarantee**

We will replace, free of charge, any piece of goods sold by us, found defective on account of workmanship or material, but we will not be responsible for any goods, unless used according to directions.

## **Weights**

Weights given are only approximate and are in no case guaranteed, owing to variation in stock from which goods are manufactured.

## **Engineering Services**

We gladly offer the services of our Engineering Department to those of our customers who have special requirements to meet. Blue prints showing the special goods in detail, also erection of same, furnished when required.



# DOORWAYS



DOORWAYS, the bright, newsy R-W house organ, has gone forth, every month for the past fourteen years, to shake hands with a selected list of architects, contractors, industrial plants and dealers. Present circulation is between 40 and 50 thousand each month. Another willing and efficient worker in the broad, continuous advertising campaign of R-W!

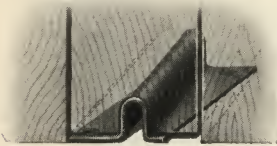
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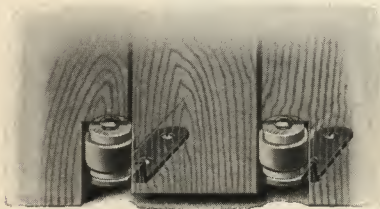


Fig. A-1400—Silent, Efficient, Vanishing Doors

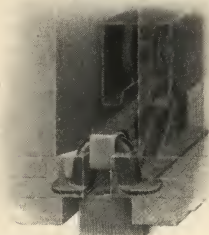
## Vanishing House Doors for Fine Homes Demand R-W Hardware



No. 19 Floor Door Guide



No. 9 Floor Door Guide



No. 19 Center Door Stop



Fig. A-1401—Close View Showing Slotted Plate and Adjusting Screw in Pocket End of Track.

THE modern home and apartment are filled with space saving contrivances; built in ice boxes and kitchen cabinets; built in buffets, bookcases and chiffoniers; disappearing beds and ironing boards, even disappearing attic stairs in some cases. Of all these space saving devices, perhaps none are more important nor numerous than disappearing or vanishing house doors.

R-W Vanishing House Doors silently disappear into the walls on ball-bearing adjustable hangers, many of which operate in wood lined track. A small child can easily open or close them.

Today vanishing doors are not only being used in pairs, as formerly, to separate the living room from the dining room, or one bed room from another, but single vanishing doors are now used in any opening where it is desired to save space; clothes and linen closets; bath, dressing and breakfast rooms, pantries and stairway openings.

Space is saved by permitting furniture or shelving to be placed on either side of the doorway, which cannot be done when swing doors are used.

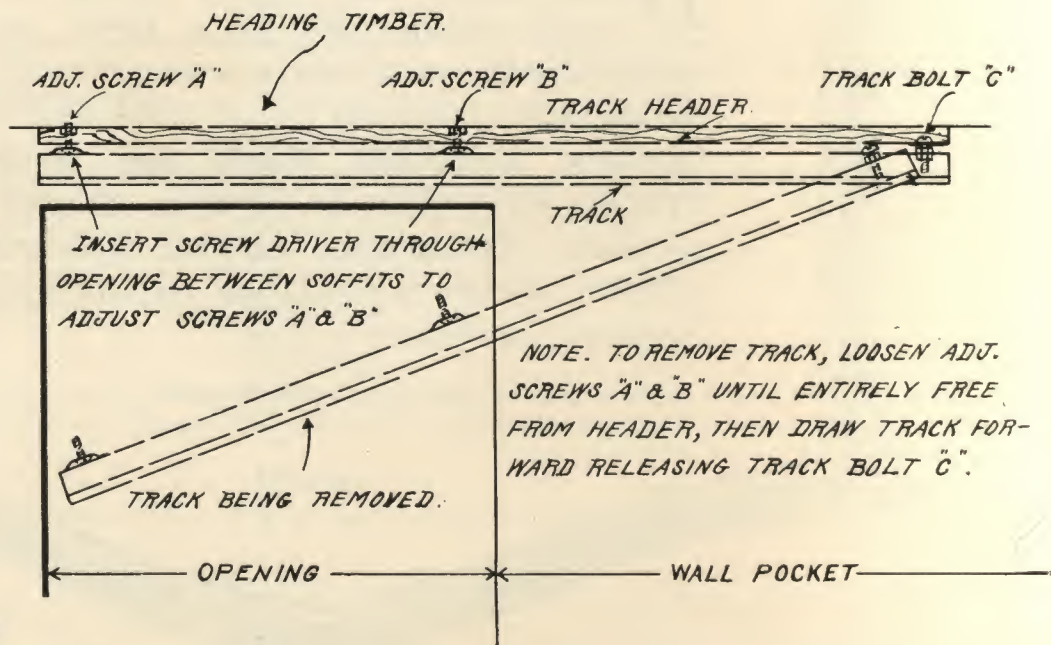


Fig. A-1402



**R-W No. 9**

## "Rambler" Vanishing Door Hangers

## Ball-Bearing

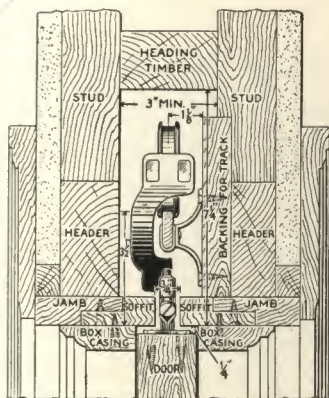
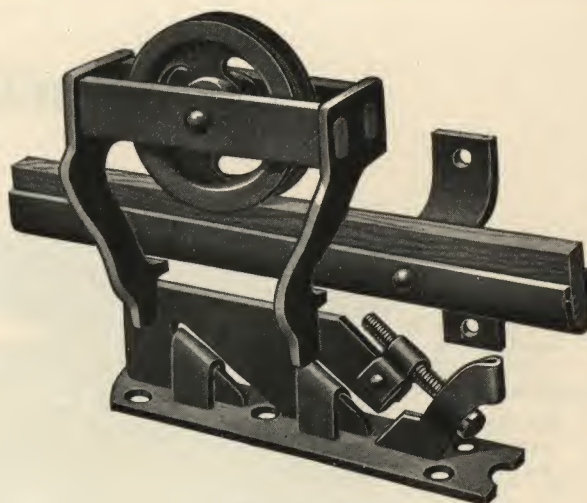


Fig. A-1403—Cross-Section  
Thru Head Jamb



No. 9

Track: Hard maple and steel, No. 9 type. Full sets for 7-foot double opening; half sets for 4-foot single opening. No. 9 track is provided with cut-off slot one foot from each end, to allow for variation in size of opening. Wheels: Grey Iron, lathe turned; 3 inches diameter. Bearings,

steel balls. Limit Stop prevents hanger from jumping track. Finish, Lacquer. Packed complete with screws, overhead center stop, and No. 9 floor guides. Weight, Full Set: Hangers, 10 lbs.; track, 9½ lbs. Half Set: Hangers, 5 lbs.; track, 5½ lbs.

## List Price

	List Price
No. 9—Full Set, including track (14 ft.)	\$6.00
No. 9—Half Set, including track (8 ft.)	3.00
*No. 9—Extra Track. Per foot.	.14

**\*Note—**No. 9 Track is made in 7 and 8-foot lengths only.

See page 4 for Floor Door Guides and for Center Door Stop.

Discount.....

## R-W No. 11

## "XXX" Vanishing Door Hangers

## Brass Bushed Bearings

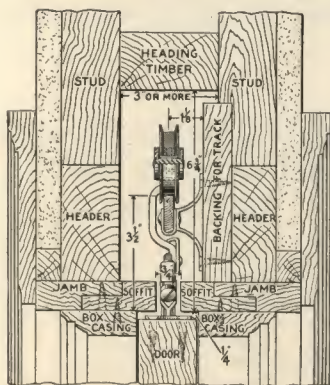
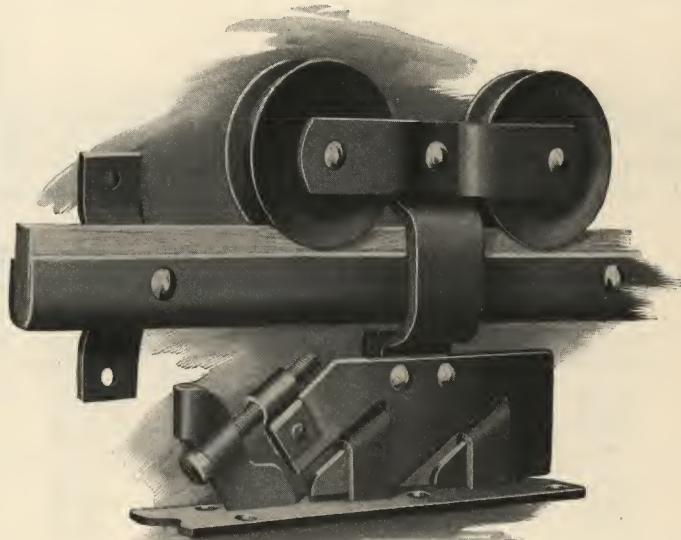


Fig. A-1404—Cross-Section  
Thru Head Jamb



No. 11

Track: Hard maple and steel. No. 9 type. Full sets for 7-foot double opening; half sets for 4-foot single opening. No. 9 track is provided with cut-off slot one foot from each end, to allow for variation in size of opening. Wheels: Steel, 2½ inches diameter with vulcanized fibre centers.

noiseless. Bearings, brass bushed. Limit Stop prevents hanger from jumping track. Finish, lacquer. Packed complete with screws, overhead center stop, and No. 19 floor guides. Weight, Full Set: Hangers, 8¼ lbs.; track, 9½ lbs. Half Set: Hangers, 4 lbs.; track, 5½ lbs.

## List Price

No. 11—Full Set, including track (14 ft.)	\$6.00
No. 11—Half Set, including track ( 8 ft.)	3.00
*No. 9—Extra Track. Per foot	.14

\*Note: No. 9 Track is made in 7 and 8 foot lengths.

\*Note—No. 9 Track is made in 7 and 8-foot lengths only.

Note: No. 9 Track is made in 7 and 8-foot lengths only.  
See page 4 for Floor Door Guides and for Center Door Stop.

Discount.....



R-W No. 19

## "Hero" Vanishing House Door Hangers

Ball-Bearing

Track can be easily removed without injury to plastered walls.

For doors wider than five feet we recommend No. 16 Hangers.

The Most Popular Hanger for Homes of Moderate Cost

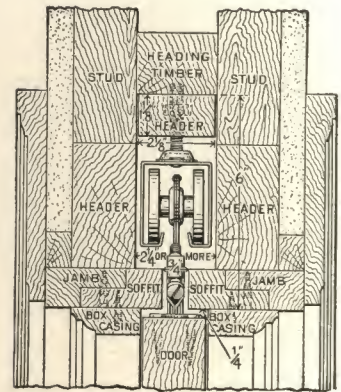
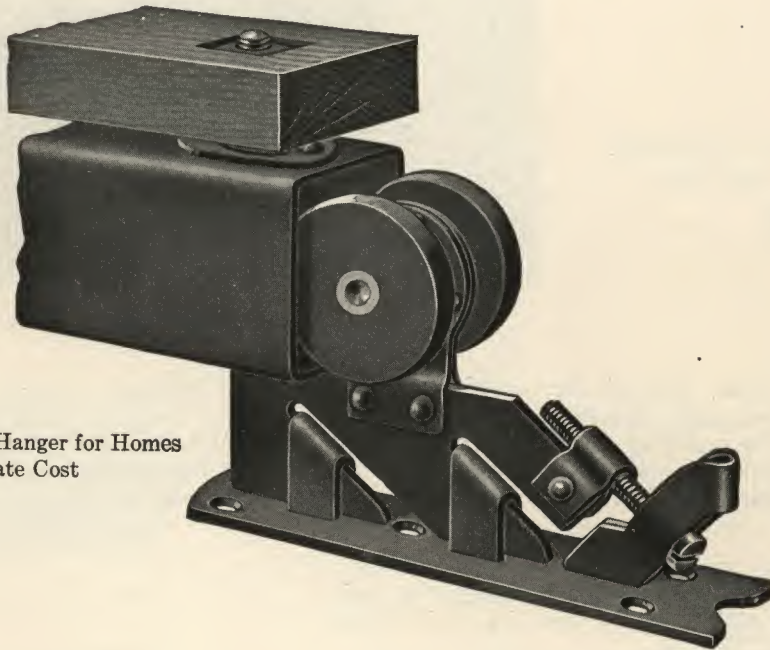


Fig. A-1405—Cross-Section Thru Head Jamb

### No. 19

Track: No. 16 gauge steel; No. 19 type, furnished with wood header; adjustable as illustrated. Length of track equals twice width of opening. Wheels: Vulcanized fibre;  $2\frac{1}{8}$  inches diameter. Bearings, steel balls. Finish, lacquer.

Packed complete with screws, overhead center stop, and No. 19 floor guides. Weight, Full Set: Hangers, 5 lbs.; Half Set: Hangers,  $2\frac{1}{2}$  lbs.; track, per foot,  $2\frac{1}{4}$  lbs.

### List Price of Hangers and Track

DOUBLE DOORS (Full Set)			SINGLE DOORS (Half Set)		
Number	Width of Opening	List Price	Number	Width of Opening	List Price
19-24	4 feet.....	\$7.00	19-12½	2½ feet.....	\$3.50
19-24½	4½ feet.....	7.40	19-13	3 feet.....	3.80
19-25	5 feet.....	7.80	19-13½	3½ feet.....	4.10
19-25½	5½ feet.....	8.20	19-14	4 feet.....	4.50
19-26	6 feet.....	8.60	19-14½	4½ feet.....	4.80
19-26½	6½ feet.....	9.00	19-15	5 feet.....	5.10
19-27	7 feet.....	9.40	19-15½	5½ feet.....	5.40
19-27½	7½ feet.....	9.80	19-16	6 feet.....	5.70
19-28	8 feet.....	10.20	19-16½	6½ feet.....	6.00
19-29	9 feet.....	10.60	19-17	7 feet.....	6.30
19-210	10 feet.....	11.00	19-17½	7½ feet.....	6.60
			19-18	8 feet.....	7.00

No. 19—Hangers for double doors, without track. .... \$4.00  
 No. 19—Hangers for single doors, without track. .... 2.00

Discount.....

**Note**—When ordering track without hangers, the list price is found by deducting the list price of hangers without track from list prices given for various openings. Order by number.

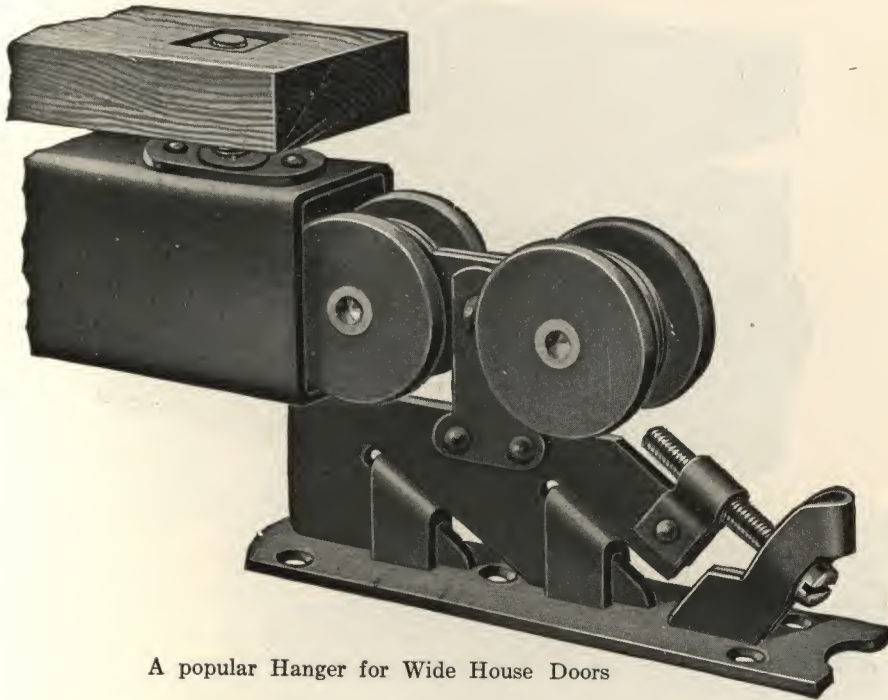
See page 4 for Floor Door Guides and for Center Door Stop.



R-W No. 16

## "Twin" Vanishing House Door Hangers

Ball-Bearing



A popular Hanger for Wide House Doors

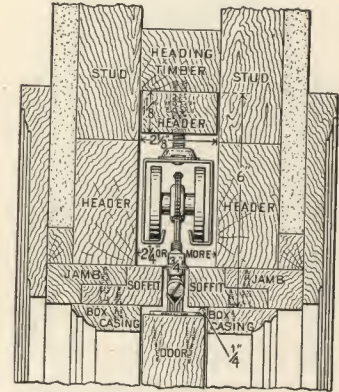


Fig. A-1406—Cross-Section Thru Head Jamb

Track can be easily removed without injury to plastered walls.

### No. 16

Track: No. 16 gauge steel; No. 19 type, furnished with wood header; adjustable as illustrated. Length of track equals twice width of opening. Wheels: Vulcanized fibre;  $2\frac{1}{8}$  inches diameter. Bearings, steel balls. Finish, lacquer.

Packed complete with screws, overhead center stop, and No. 19 floor guides. Weight, Full Set: Hangers,  $6\frac{1}{2}$  lbs.; Half Set: Hangers, 3 lbs.; track per foot,  $2\frac{1}{4}$  lbs.

### List Price of Hangers and Track

DOUBLE DOORS (Full Set)			SINGLE DOORS (Half Set)		
Number	Width of Opening	List Price	Number	Width of Opening	List Price
16-24	4 feet.....	\$8.00	16-12½	2½ feet.....	\$4.00
16-24½	4½ feet.....	8.40	16-13	3 feet.....	4.40
16-25	5 feet.....	8.80	16-13½	3½ feet.....	4.80
16-25½	5½ feet.....	9.20	16-14	4 feet.....	5.20
16-26	6 feet.....	9.60	16-14½	4½ feet.....	5.60
16-26½	6½ feet.....	10.00	16-15	5 feet.....	6.00
16-27	7 feet.....	10.40	16-15½	5½ feet.....	6.40
16-27½	7½ feet.....	10.80	16-16	6 feet.....	6.80
16-28	8 feet.....	11.20	16-16½	6½ feet.....	7.20
16-29	9 feet.....	11.60	16-17	7 feet.....	7.50
16-210	10 feet.....	12.00	16-17½	7½ feet.....	7.75
			16-18	8 feet.....	8.00

No. 16—Hangers for double doors, without track.....

No. 16—Hangers for single doors, without track..... \$5.00

2.50

### Discount.....

**Note**—When ordering track without hangers, the list price is found by deducting the list price of hangers without track from list prices given for various openings. Order by number.

See page 4 for Floor Door Guides and for Center Door Stop.

*No need for Vanishing Doors to stick; Hangers and Track are now adjustable*



## R-W No. R-122 "Royal" Vanishing House Door Hangers Ball-Bearing

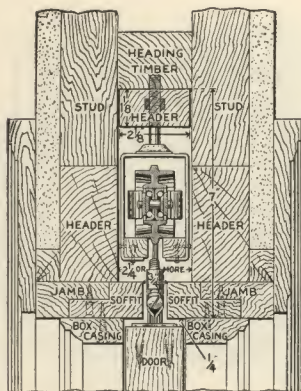
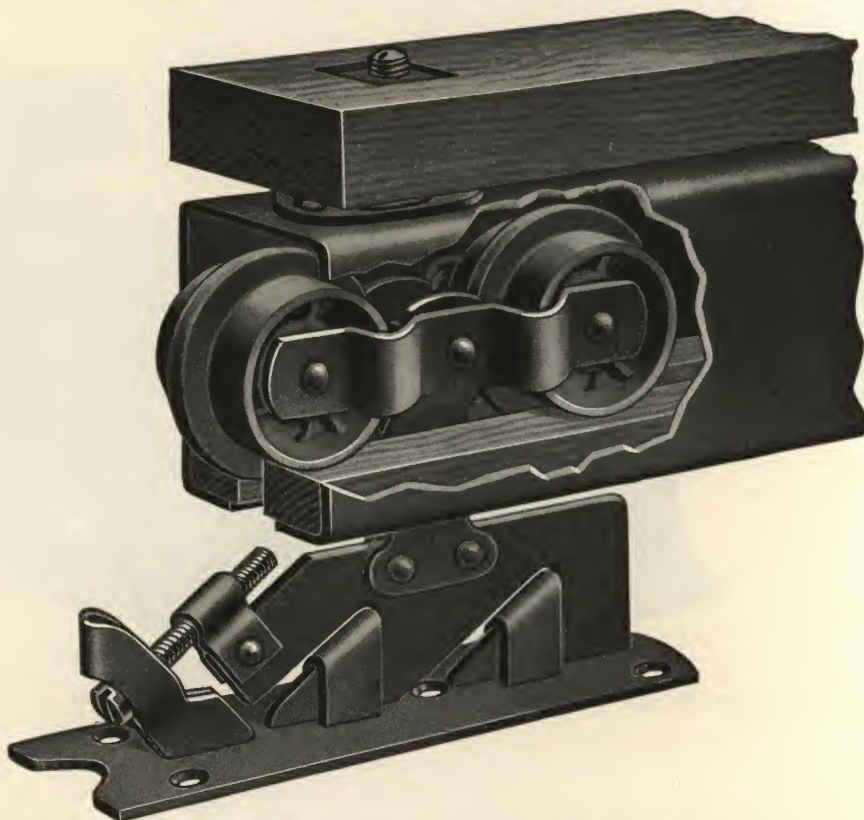


Fig. A-1407—Cross-Section  
Thru Head Jamb

Track can be  
easily removed  
without injury  
to plastered walls.



### No. R-122

Track: No. 16 gauge steel, hard maple lined; No. R-122 type, furnished with wood header; adjustable as illustrated. Length of track equals twice width of opening. Wheels: Grey Iron, lathe turned;  $2\frac{1}{4}$  inches diameter. Bearings,

steel balls. Finish, lacquer. Packed complete with screws, overhead center stop, and No. 19 floor guides. Weight, Full Set: Hangers, 10 lbs.; Half Set: Hangers, 5 lbs.; track, per foot, 3 lbs.

### List Price of Hangers and Track

DOUBLE DOORS (Full Set)			SINGLE DOORS (Half Set)		
Number	Width of Opening	List Price	Number	Width of Opening	List Price
R122-24	4 feet.....	\$10.00	R122-12½	2½ feet.....	\$5.00
R122-24½	4½ feet.....	10.60	R122-13	3 feet.....	5.50
R122-25	5 feet.....	11.20	R122-13½	3½ feet.....	6.00
R122-25½	5½ feet.....	11.80	R122-14	4 feet.....	6.50
R122-26	6 feet.....	12.40	R122-14½	4½ feet.....	7.00
R122-26½	6½ feet.....	13.00	R122-15	5 feet.....	7.50
R122-27	7 feet.....	13.60	R122-15½	5½ feet.....	8.00
R122-27½	7½ feet.....	14.20	R122-16	6 feet.....	8.50
R122-28	8 feet.....	14.80	R122-16½	6½ feet.....	9.00
R122-29	9 feet.....	15.40	R122-17	7 feet.....	9.50
R122-210	10 feet.....	16.00	R122-17½	7½ feet.....	10.00
			R122-18	8 feet.....	10.50

No. R-122—Hangers for double doors, without track.....\$4.50  
No. R-122—Hangers for single doors, without track.....2.25

### Discount

**Note**—When ordering track without hangers, the list price is found by deducting the list price of hangers without track from list prices given for various openings. Order by number.

See page 4 for Floor Door Guides and for Center Door Stop.



R-W No. 221

## "Advance" Trolley House Door Hangers

Ball-Bearing

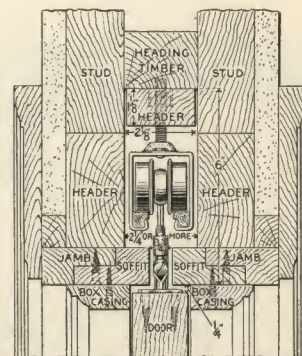
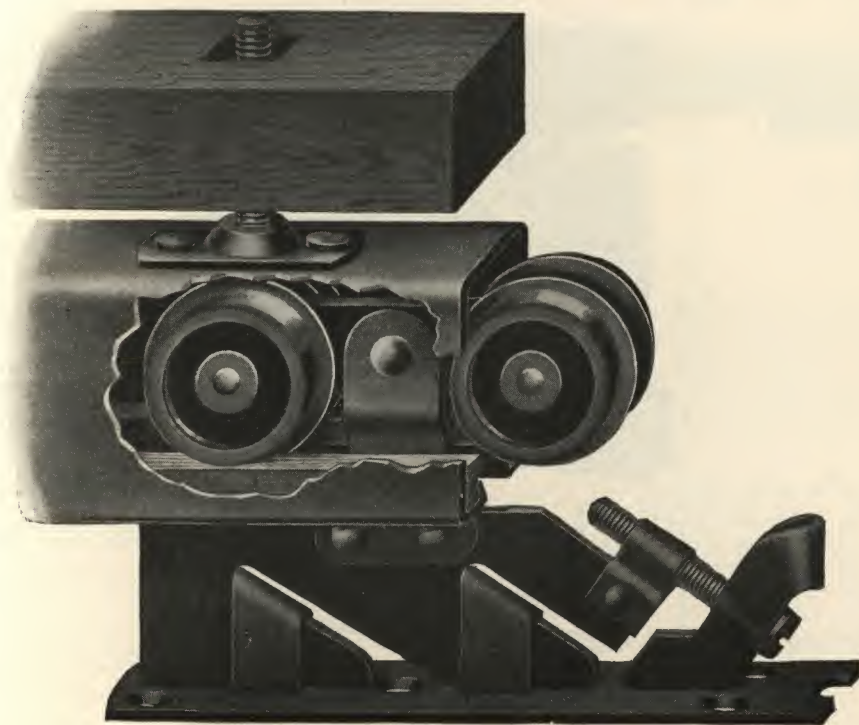


Fig. A-1408—Cross-Section Thru Head Jamb

Track can be easily removed without injury to plastered walls.

### No. 221

Track: No. 16 gauge steel, hard maple lined, No. 221 clincher type, furnished with wood header, adjustable as illustrated. Length of track equals twice width of opening. Wheels: Pressed Steel,  $1\frac{1}{8}$  inches diameter. Forged

frames and hardened ball-bearings. Finish, lacquer. Packed complete with screws, overhead center stop, and No. 19 floor guides. Weight, Full Set: Hangers, 8 lbs.; Half Set; Hangers, 4 lbs.; track, per foot,  $2\frac{1}{2}$  lbs.

### List Price of Hangers and Track

DOUBLE DOORS (Full Set)			SINGLE DOORS (Half Set)		
Number	Width of Opening	List Price	Number	Width of Opening	List Price
221-24	4 feet.....	\$10.00	221-12½	2½ feet.....	\$5.00
221-24½	4½ feet.....	10.50	221-13	3 feet.....	5.50
221-25	5 feet.....	11.00	221-13½	3½ feet.....	6.00
221-25½	5½ feet.....	11.50	221-14	4 feet.....	6.50
221-26	6 feet.....	12.00	221-14½	4½ feet.....	7.00
221-26½	6½ feet.....	12.50	221-15	5 feet.....	7.50
221-27	7 feet.....	13.00	221-15½	5½ feet.....	8.00
221-27½	7½ feet.....	13.50	221-16	6 feet.....	8.50
221-28	8 feet.....	14.00	221-16½	6½ feet.....	9.00
221-29	9 feet.....	14.50	221-17	7 feet.....	9.50
221-210	10 feet.....	15.00	221-17½	7½ feet.....	10.00
			221-18	8 feet.....	10.50

No. 221—Hangers for double doors, without track..... \$4.50  
 No. 221—Hangers for single doors, without track..... 2.25

### Discount.....

**Note**—When ordering track without hangers, the list price is found by deducting the list price of hangers without track from list prices given for various openings. Order by number.

See page 4 for Floor Door Guides and for Center Door Stop.

*Quality is easily recognizable. Give the above Hanger a Glance*



## R-W No. 6 "Rex" House Door Hangers Brass Bushed Bearings

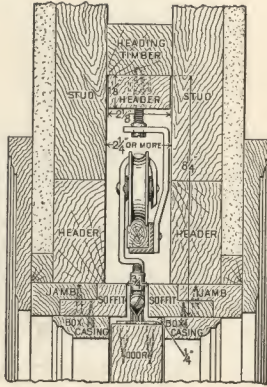
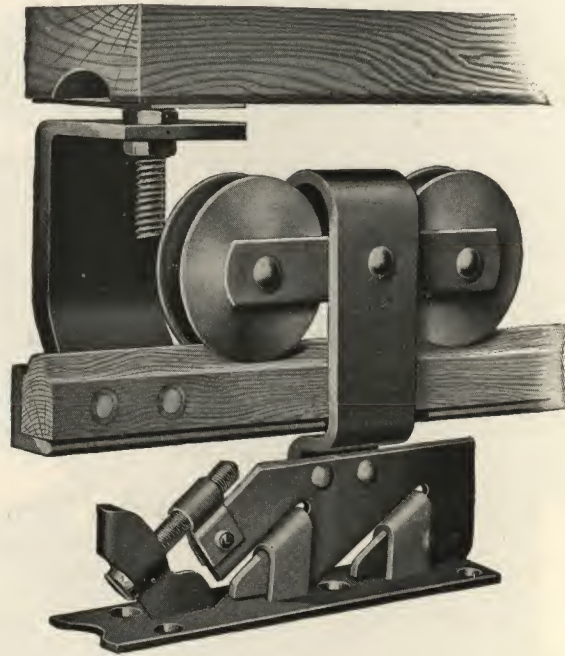


Fig. A-1409—Cross-Section  
Thru Head Jamb

Track can be  
easily removed  
without injury  
to plastered walls



### No. 6

Track: Hard maple runway, reinforced by heavy steel angle; No. 6 type, furnished with wood header, adjustable as illustrated. Length of track equals twice width of opening. Wheels: Steel, 2½ inches diameter, with vulcanized fibre centers, noiseless. Bearings, brass bushed.

Finish, lacquer. Packed complete with screws, overhead center stop, and No. 19 floor guides. Weight, Full Set: Hangers, 9½ lbs.; Half Set: Hangers, 4½ lbs.; Track, per foot, 2¼ lbs.

### List Price of Hangers and Track

DOUBLE DOORS (Full Set)			SINGLE DOORS (Half Set)		
No.	Width of Opening	List Price	Number	Width of Opening	List Price
6-24	4 feet	\$6.00	6-12½	2½ feet	\$3.00
6-24½	4½ feet	6.30	6-13	3 feet	3.00
6-25	5 feet	6.60	6-13½	3½ feet	3.25
6-25½	5½ feet	6.90	6-14	4 feet	3.50
6-26	6 feet	7.20	6-14½	4½ feet	3.75
6-26½	6½ feet	7.50	6-15	5 feet	4.00
6-27	7 feet	7.80	6-15½	5½ feet	4.50
6-27½	7½ feet	8.10	6-16	6 feet	4.75
6-28	8 feet	8.40	6-16½	6½ feet	5.00
6-29	9 feet	8.70	6-17	7 feet	5.25
6-210	10 feet	9.00	6-17½	7½ feet	5.50
			6-18	8 feet	5.75

No. 6—Hangers, for double doors, without track.

No. 6—Hangers, for single doors, without track. \$3.00

1.50

**Note**—When ordering track without hangers, the list price is found by deducting the list price of hangers without track from list prices given for various opening. Order by number.

See page 4 for Floor Door Guide and for Center Door Stop.

**Discount**



R-W No. 722

## "Ideal" Vanishing House Door Hangers



The R-W No. 722 "Ideal" Vanishing House Door Hanger is the highest class, smoothest operating hanger for use in residences and apartments, that has been offered to the public. It is made of the same materials which have been so successfully used in our elevator door hangers. The weight of the door is carried on two rows of one-half inch diameter balls spread out over a long area and so arranged that pure rolling action is attained, thereby reducing friction to a minimum.

The track is adjustable and is attached to a wood header furnished with the track. Length of track equals twice width of opening. Track can be removed from pocket after walls are plastered. Vertical adjustment for the door is also provided. Minimum width of pocket is  $2\frac{1}{4}$  inches. Distance from top of door to heading timber is  $6\frac{3}{4}$  inches, see vertical cross section.

No. 19 Floor guides, center stops and screws are furnished with the hangers. Finish, rustless dead black.

**Weight of Half Set**—No. 722-12½—15 lbs. Add  $2\frac{1}{3}$  lbs. for each additional ½ foot of opening width.

**Weight of Full Set**—No. 722-24—46 lbs. Add  $4\frac{2}{3}$  lbs. for each additional ½ foot of opening width.

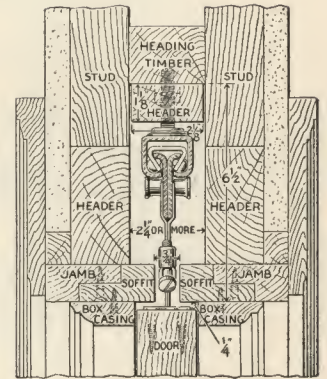


Fig. A-1410—Cross-Section Thru Head Jamb

### List Price

DOORS IN PAIRS (Full Sets)			SINGLE DOORS (Half Sets)		
Number	Width of Opening	List Price	Number	Width of Opening	List Price
722-24	4 feet.....	\$25.30	722-12½	2½ feet.....	\$12.65
722-24½	4½ feet.....	27.10	722-13	3 feet.....	14.85
722-25	5 feet.....	28.90	722-13½	3½ feet.....	17.05
722-25½	5½ feet.....	30.70	722-14	4 feet.....	19.25
722-26	6 feet.....	32.50	722-14½	4½ feet.....	21.45
722-26½	6½ feet.....	34.30	722-15	5 feet.....	23.65
722-27	7 feet.....	36.10	722-15½	5½ feet.....	25.85
722-27½	7½ feet.....	37.90	722-16	6 feet.....	28.05
722-28	8 feet.....	39.70	722-16½	6½ feet.....	30.25
722-29	9 feet.....	43.30	722-17	7 feet.....	32.45
722-210	10 feet.....	46.90	722-17½	7½ feet.....	34.65
			722-18	8 feet.....	36.85

**Note**—For intermediate widths of opening, use next higher list price.

In ordering, state exact width of opening, i. e. distance between the finished jambs.

See page 4 for Floor Door Guides and for Center Door Stop.

Discount.....



R-W No. 4

## "Trojan" Trolley Door Hangers

Ball-Bearing

Designed for Extremely Heavy Doors, and Especially Adapted  
for Post Office and Other Government Work

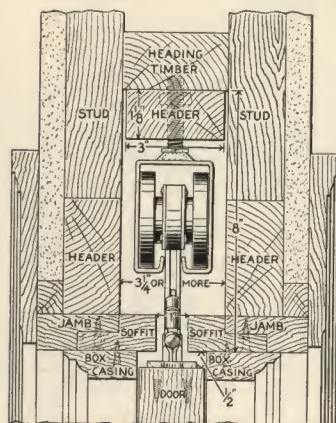
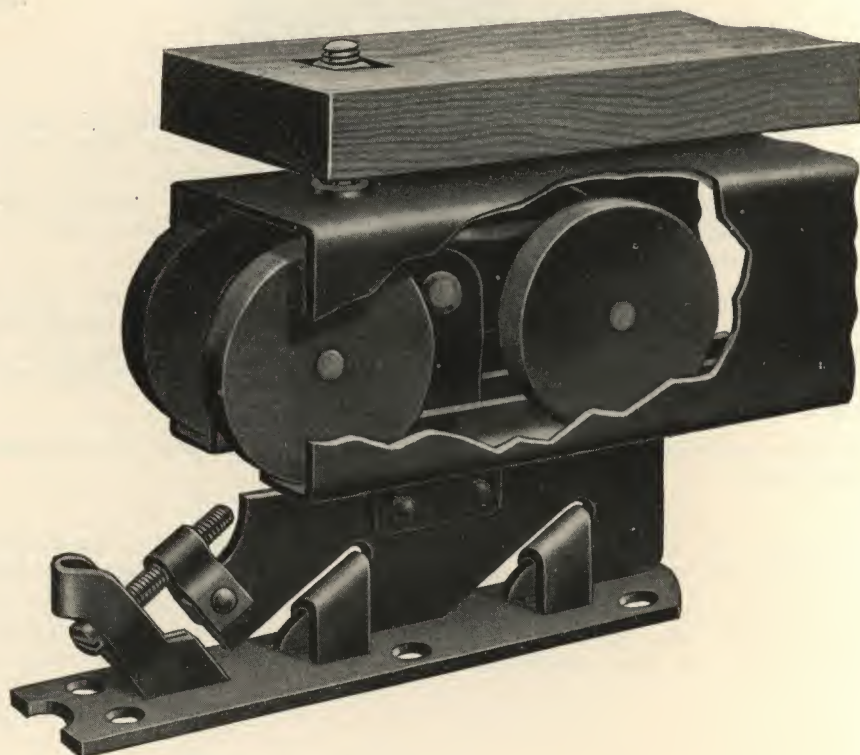


Fig. A-1411—Cross-Section  
Thru Head Jamb

Track can be  
easily removed  
without injury  
to plastered walls.



### No. 4

Track: No. 14 gauge steel; No. 4 type, furnished with wood header; adjustable as illustrated; length of track equals twice width of opening. Metal wheels will be furnished unless otherwise specified. Fibre wheels furnished on special order. Diameter of wheels is 3 inches.

Bearings, steel balls. One-piece drop forged steel frame. Finish, lacquer. Packed complete with screws, overhead center stop, and No. 19 floor guides. Weight: Hangers, steel wheels, per pair, 8 lbs.; fibre wheels, per pair, 7 lbs.; track, per foot, 4 lbs.

### List Price

No. 4—Hangers, fibre or metal wheels. Per pair.....	\$7.50
No. 4—Track. Per foot.....	.75

See page 4 for Floor Door Guides and for Center Door Stop.

Discount.....



## R-W No. 377 "Right Angle" School Wardrobe Door Hardware

Approved by Boards of Education of Leading Cities

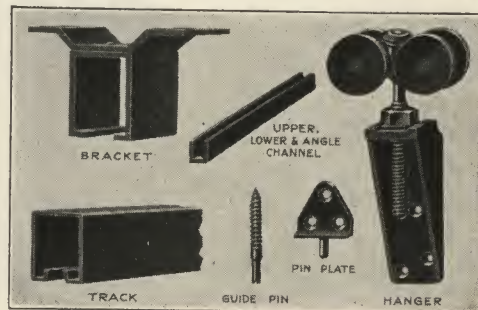


Fig. A-1412—View of No. 377 Parts

**I**NSTEAD of being built as a separate room, public school wardrobes of the most approved types are built in the end of the class room, with a continuous series of doors along the entire front, opening into the class room.

### Eliminate Cloak Rooms

The use of this equipment eliminates cloak rooms and thus saves considerable of the original cost of the building.

### Three Types

A selection of the type best adapted for your particular case, may be made from the three methods of door operation as shown on this and the following pages.

### How Ventilated

If desired, these wardrobes may be connected with the regular ventilating system employed in the school building, or holes may be drilled into the upper and lower panels for this purpose.

### Blackboard Panels

Slate panels, to be used for blackboards instead of wood panels, may be built into the doors if desired.

### Adjacent Wardrobes

The illustration in the upper left hand corner of this page shows a series of small adjoining wardrobes, the front of each of which is closed by two doors. When open, the doors stand parallel with the side walls of the wardrobes.

### Operation of Doors

In opening, each door swings and slides into place (see Door Plan Below, Fig. A-1414).

A single four wheeled hanger with swivel pendant is attached to the top of each door at its center (see Fig. A-1413).

Guides at the upper and lower back corners (Fig. A-1416) and at the center of the bottom of the door (Fig. A-1413) keep it absolutely in line and guide its travel.

The doors only require a small portion of the interior of the wardrobe in which to open. Practically the whole interior can be used for clothing and hat shelf, without interference. Three rows of coat hooks are ordinarily used.

### Finish

All hardware except guide tracks, is furnished regularly in black enamel finish.

Guide tracks are furnished in solid brass, natural finish; or in steel, black enamel finish. Brass guide tracks are recommended. Special finishes furnished on request.

### List Price

No. 377. Wardrobe Door Hardware (for 1 pair of doors), with solid brass guide track, weight 24 lbs.	per set.....	\$40.00
No. 377. Wardrobe Door Hardware (for 1 pair of doors), with steel guide track, weight 24 lbs.	per set.....	30.00
Latches and Pulls are not included in above prices but their prices will be furnished upon application.		
	Discount.....	

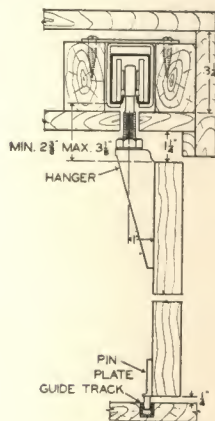
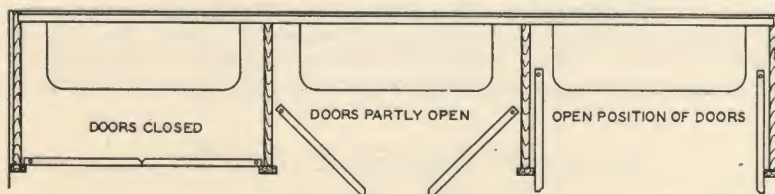
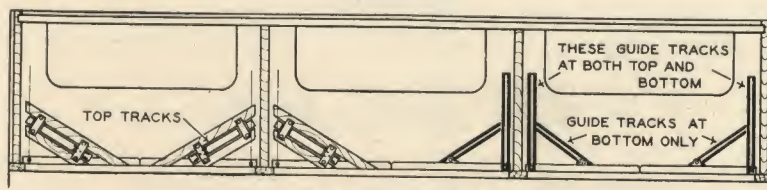


Fig. A-1413  
Cross-Section Thru  
Center of Door



PLAN OF DOORS  
Fig. A-1414



PLAN OF TRACKS  
Fig. A-1415

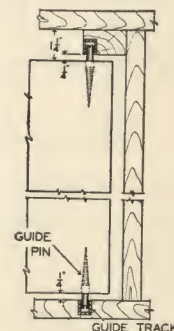


Fig. A-1416  
Cross-Section Thru  
End of Door



## R-W No. 577 Single Track School Wardrobe Door Hardware

Approved by Boards of Education of Leading Cities

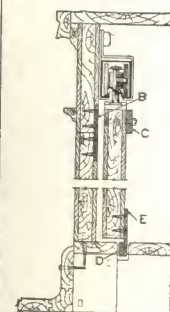
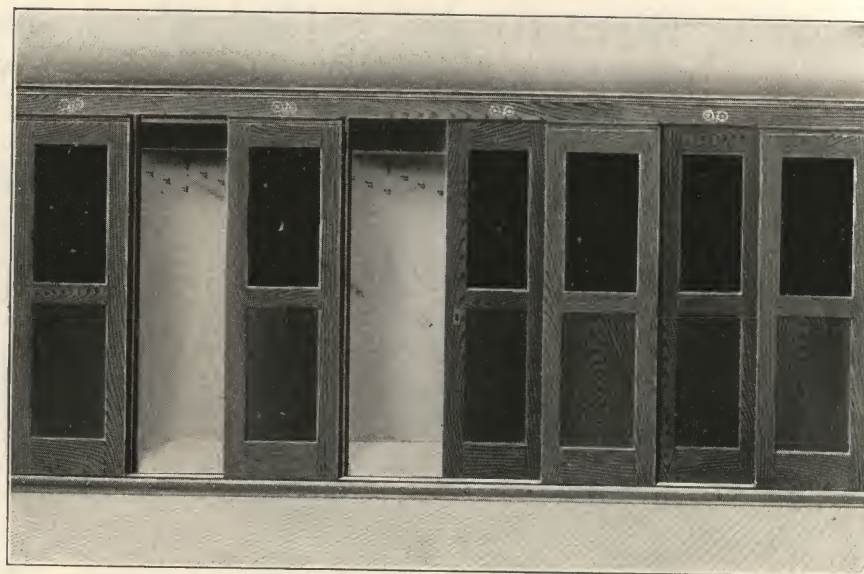


Fig. A-1417  
Vertical Cross-Section

The wardrobe illustrated above consists of four Sliding doors and four Stationary doors. This allows half of the front of the wardrobe to be opened. Of course any even number of doors may be used. The tops of the Stationary doors are fastened to the casing by a metal plate ("B" Fig. A-1417). The bottom of these doors are toe-nailed to the floor of the wardrobe.

The top of each Sliding door has fastened to its center a hanger. Each pair of sliding doors are fastened together by steel connecting bars at the top and bottom of the doors ("C" and "D", Fig. A-1417), thus permitting each group of doors to be opened or closed at one time. The bar "D" operates in a groove in the floor to guide the doors and keep their bottoms in place. Plates "E" are as long as the doors are wide and serve to connect the doors with bar "D."

Adjoining the childrens' wardrobe, to the left at "F" Fig. A-1418, is the teacher's closet or locker. At the opposite end of the wardrobe at "G" the ventilator shaft has openings directly connected with the wardrobe on each floor of the building. Doors should be made narrow, not exceeding two feet in width. Wider doors make it inconvenient to reach the clothing which is hung behind the stationary panels.

The floor of the wardrobe is often raised to a level with the top of baseboard (Fig. A-1418) so that the latter may run around the room unbroken, except for the entrance doorway. This adds to the architectural beauty of the room.

Hangers Nos. 526 and 626 run in No. 526 wood lined track, while Nos. 26 and 226 run in standard No. 31 steel track. No. 126 runs in No. 30 1/2 steel track. Hangers Nos. 526, 626, 26 and 226 are for 1 3/4" doors, No. 126 for 1 3/8" doors.

### List Price of Parts

No. 526 Hanger, each.....	\$2.25
No. 626 Hanger, each.....	2.25
No. 26 Hanger, each.....	1.75
No. 226 Hanger, each.....	1.75
No. 126 Hanger, each.....	1.75
No. 526 Track, per ft.....	.70

No. 31 Track, per ft.....	\$ .25
No. 30 1/2 Track, per ft.....	.21
No. 1 Bracket, each.....	.21
No. 2 Bracket, each.....	.21
No. 7 Bracket, each.....	.21
No. 8 Bracket, each.....	.21

No. 577 Connecting Plate, per ft.....	\$ .40
No. 577 Bottom Connecting Bars, per ft.....	.36
No. 577 Bottom Door Bar, per ft.....	1.00
Flush Pulls, not furnished by R-W.	

Hanger No. 26 is identical with No. 226; Hanger No. 526 is identical with No. 626; EXCEPT that the former in both cases have aprons instead of plates.

### Important—Directions for Ordering

Always State—Width of Opening; Number of Sliding Doors; Number of Stationary Doors. Are all of the doors to slide to one side or are they to divide at the center; Half sliding each way. Always send sketch showing the number of doors and how they are to slide.

Discount.....

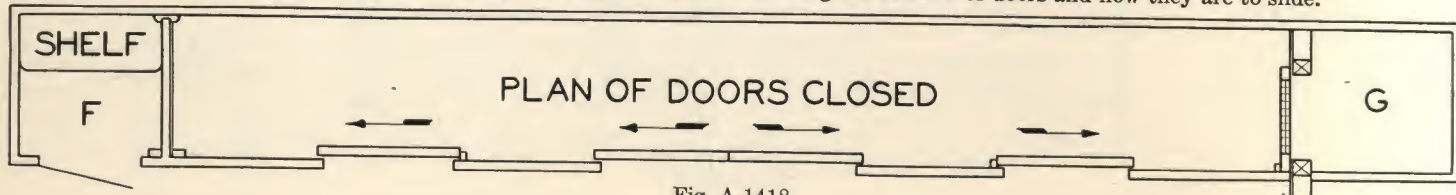


Fig. A-1418

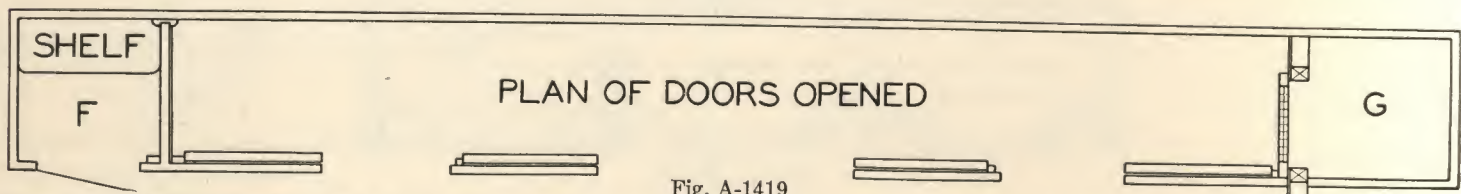


Fig. A-1419



## R-W No. 677 Parallel Track School Wardrobe Door Hardware

Approved by Boards of Education of  
Leading Cities

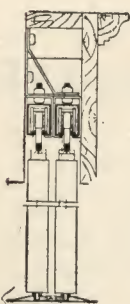
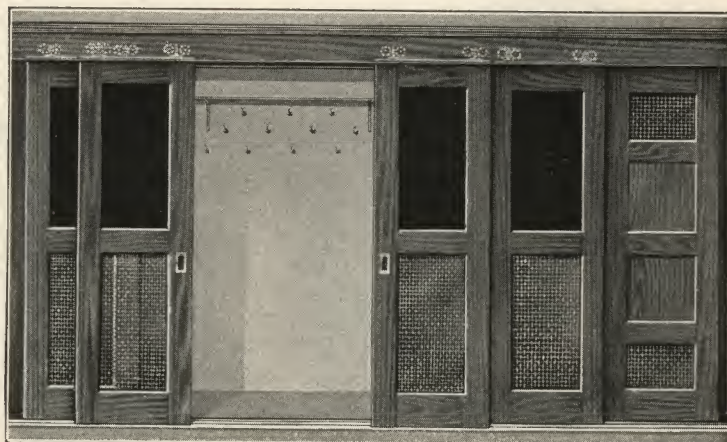


Fig. A-1420  
Vertical Cross  
Section



Perhaps the most popular of the methods of operating school wardrobe doors is where parallel track is used. The parallel track extends across the entire front of the wardrobe. In this case there are no stationary doors. Each door is mounted on a pair of hangers and is usually operated independently, although the two doors which slide in the same direction could be made to operate together if considered essential. In any event, the entire front of the wardrobe can be opened at one time.

There being no necessity for the doors being narrow these doors may each be four feet wide if desired.

The vertical cross section Fig. A-1420 shows a method of hanging the track, although ceiling brackets may be used instead of wall brackets if desired. The tracks are cased up in such a way as to be easily removable. Details of the floor guides used at the bottom of the doors are also here shown.

Hanger No. 26 is identical with No. 226; Hanger No. 526 is identical with No. 626; EXCEPT that the former in both cases have aprons in stead of plates.

### List Price of Parts

No. 526 Hangers, each.....	\$2.25
No. 626 Hangers, each.....	2.25
No. 26 Hangers, each.....	1.75
No. 226 Hangers, each.....	1.75
No. 126 Hangers, each.....	1.75
No. 526 Track, per ft.....	.70

No. 31 Track, per ft.....	\$ .25
No. 30 1/2 Track, per ft.....	.21
No. 7 Brackets, each.....	.21
No. 8 Brackets, each.....	.21
No. 22 Brackets, each.....	.66
No. 23 Brackets, each.....	.66

No. 739-1 Floor Guide (see page 32)
No. 739-2 or 3 Floor Guide Track (see page 30)
Flush Pulls—Not furnished by R-W.

Discount.....

### Important—Directions for Ordering

Always State—Width of Opening; Number of Sliding Doors; Are all of the doors to slide to one side or are they to divide at the center; Half sliding each way. Always send sketch showing the number of doors and how they are to slide.

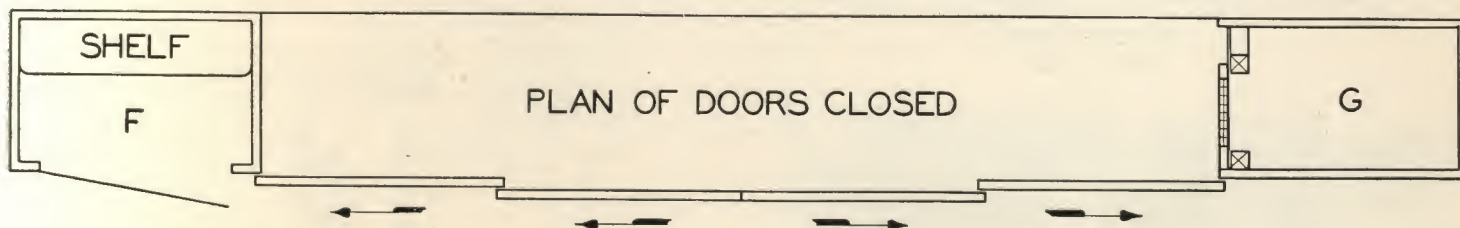


Fig. A-1421

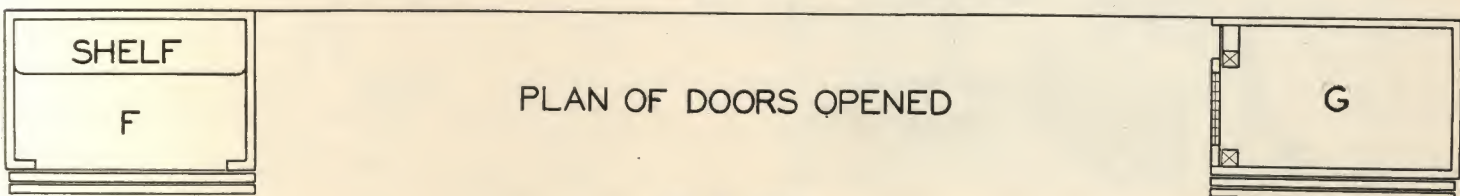


Fig. A-1422



## R-W No. 477 Sliding Folding Telephone Booth Door Fixtures

The illustration to the left shows clearly the method of operating No. 477 equipped doors. Doors so equipped are opened and closed quickly, quietly and easily. While a pair of these doors are being operated they encroach in no way upon the space in front of the adjacent booths.

Hanger: Wheels, metal,  $1\frac{3}{4}$ " in diameter; Ball bearing wheels and pendant, pendant swivels; Vertical adjustment; Suitable for doors  $1\frac{3}{8}$ " to  $2\frac{1}{4}$ " thick; Apron (by which the hanger is attached to the door) is small, due to the fact that the doors required for this type of telephone booth are usually made with very narrow rails.

Track for hanger: No. 30  $\frac{1}{2}$  type; Made of No. 16 gauge steel; In ordering No. 477 equipment, it is only necessary to specify the length of the track required. The hanger is attached near the center of the wider door, therefore, the track need not extend across the entire opening.

A Set of Fixtures Consists of the Following:

- 1—No. 477 Hanger.
- 1—Piece of No. 30  $\frac{1}{2}$  Trolley Track.
- 2—No. 2x30  $\frac{1}{2}$  End Brackets with Blinds.
- 1—4" Bow Handle, brass plated.
- \*—Hinges not furnished by us.

All hardware is reversible for right or left hand doors.

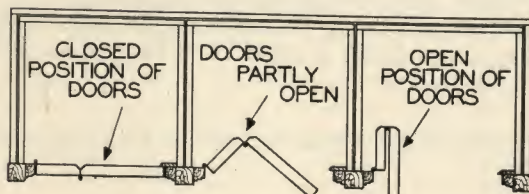
### List Price

No. 477—Telephone Booth Door Fixtures, per set. . . . . \$5.50

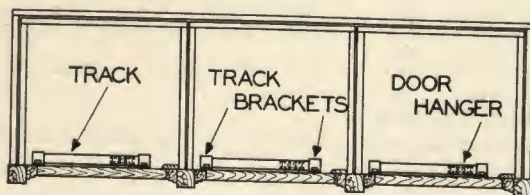
Discount.....



Fig. A-1423



PLAN OF DOORS  
Fig. A-1424



PLAN OF TRACKS  
Fig. A-1425

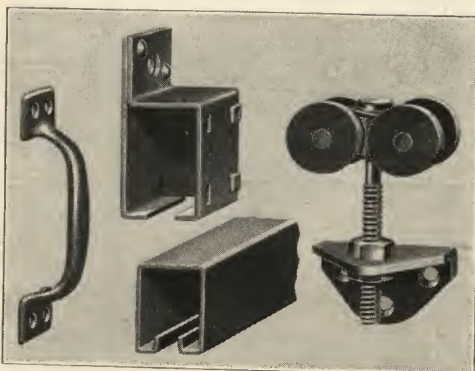


Fig. A-1426

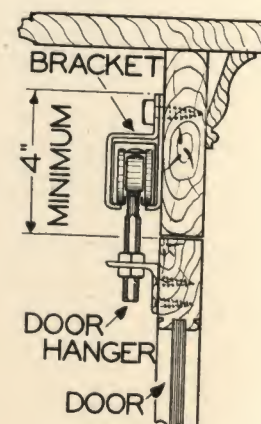


Fig. A-1427



## R-W No. 277 Receding Telephone Booth Door Fixtures

This type of Receding Door Fixture has proven very popular in toll stations, on account of saving in floor space. Takes up no space to allow for swinging of door, as with the general type of telephone booth doors. Receding space is only the thickness of door which slides to side of booth when opening. Operates very easily and booth is generally open when not in use. Can be kept closed if desired.

This fixture is also used to a great extent on scale houses, fire hose and sprinkler valve stations.

Track for hanger, No. 16 gauge steel, No. 30½ type. Channel for guide pins, upper and lower, hard brass or steel. Wheels metal, 1¾ inches diameter. Bearings, steel balls, both in hanger and swivel pendant. Suitable for doors 1⅝ to 2¼ inches thick. Adjustment vertical. Weight, per set, 12 lbs.

### A Set of Fixtures Consists of the Following:

- |                               |   |
|-------------------------------|---|
| 1—No. 277 Hanger.             | 1—No. 277 Angle Channel.                |
| 1—No. 277 Pin Plate.          | 1—Piece No. 30½ Track.                  |
| 2—No. 277 Guide Pins.         | 2—No. 5x30½ Cross Ear Ceiling Brackets. |
| 1—No. 277 Upper Channel.      | 1—4" Bow Handle.                        |
| 1—No. 277 Lower Side Channel. |   |

### List Price

No. 277—Fixtures with Brass Channels, complete, ready to erect.	
Per set.....	\$16.00
No. 277—Fixtures with Steel Channels, complete, ready to erect.	
Per set.....	10.00

Discount.....

### Directions for Ordering

State width of door, thickness, and if wood or metal. When door is open, state if front edge is flush with opening, or set back into booth or projects outside and how much.

Always send sketch showing to which side the door slides and give all dimensions asked for above.

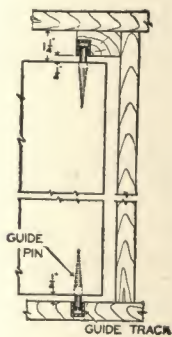


Fig. A-1428  
Cross-Section Thru  
End of Door

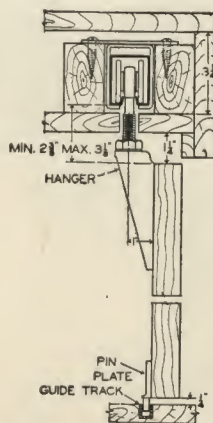


Fig. A-1429  
Cross-Section Thru  
Center of Door



Fig. A-1430



PLAN OF DOORS  
Fig. A-1431



PLAN OF TRACKS  
Fig. A-1432

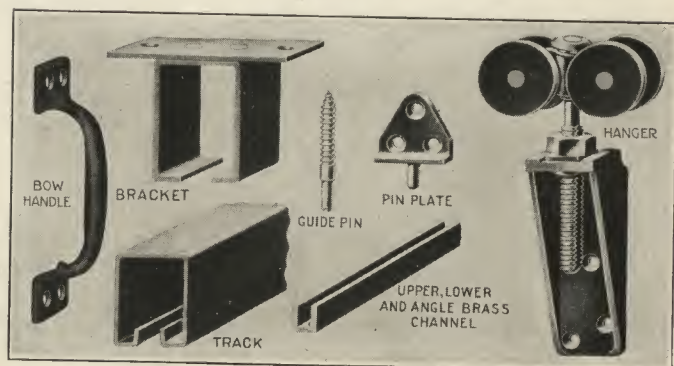


Fig. A-1433



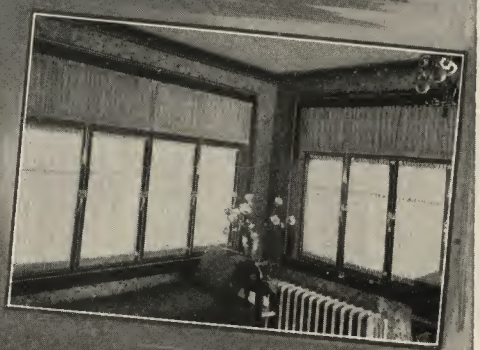
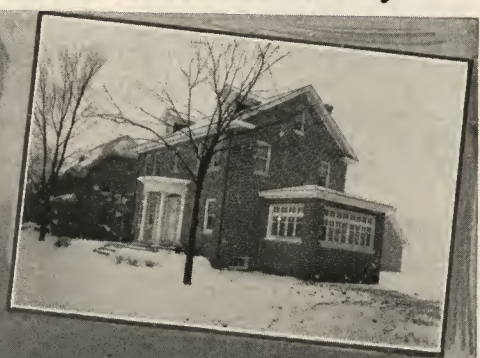
# REPRESENTATIVE INSTALLATIONS

of No 312 Multifold  INSTALLATIONS Window Hardware





# HOMES, HOTELS, HOSPITALS, APARTMENT BUILDINGS, OFFICE BUILDINGS, - - - - - All Have Need of AiR-Way



*Wherever Windows are used AiR-Way can be employed to advantage*



## AiR-Way Sets are Unexcelled

For Unobstructed Openings from 4 ft. 3 ins. to 16 ft. 6 ins. Wide and 5 ft. High

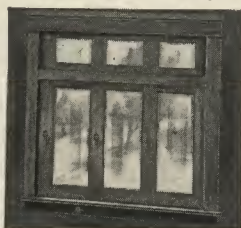
Wider Openings May be Had by the Use of Stationary Mullions.

Higher Openings Call for Specially Constructed Hardware

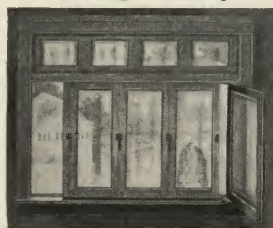
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2-Sash  
Folding One Way



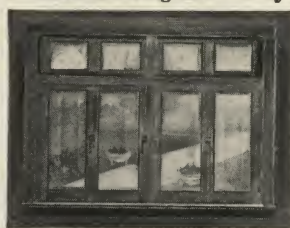
**Set No. 312-3**  
3-Sash  
Folding One Way



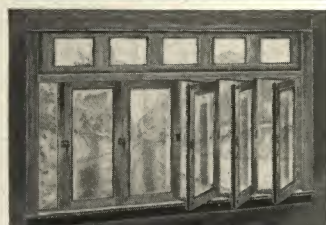
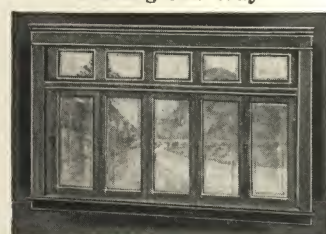
**Set No. 312-4**  
4-Sash  
Folding One Way



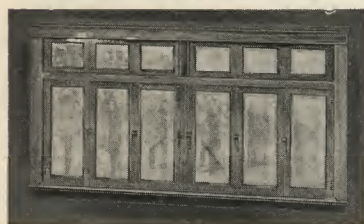
**Set No. 312-4½**  
4-Sash  
2-Sash Folding Each Way



**Set No. 312-5**  
5-Sash  
Folding One Way



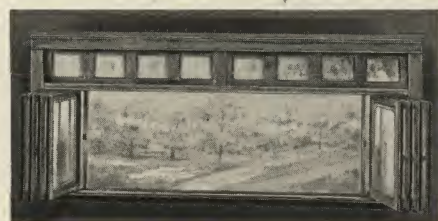
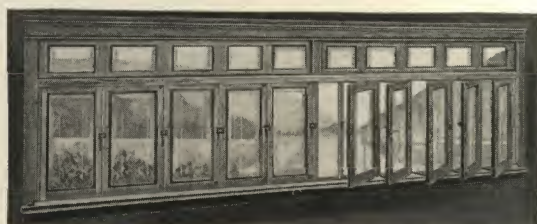
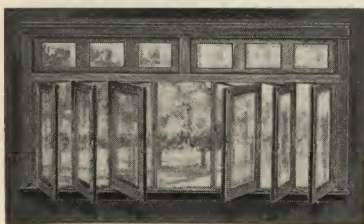
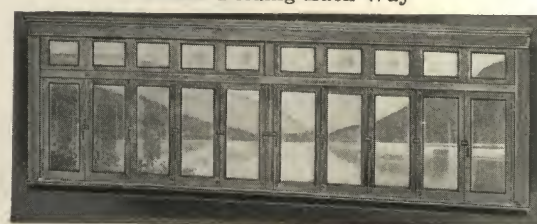
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6-Sash  
3-Sash Folding Each Way



**Set No. 312-8**  
8-Sash  
4-Sash Folding Each Way

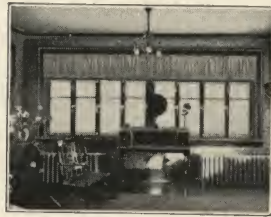


**Set No. 312-10**  
10-Sash  
5-Sash Folding Each Way





## AIR-WAY

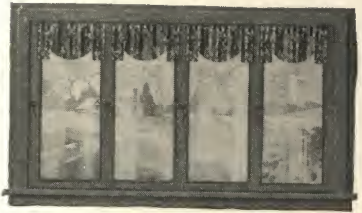
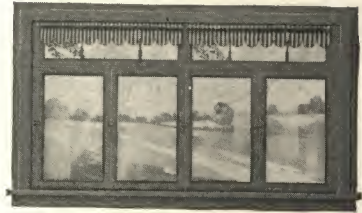
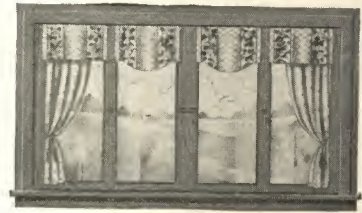
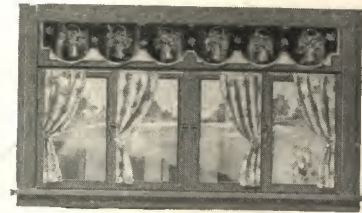


The view on the left shows an 8-sash installation with the sash closed. Each sash has a gathered individual Swiss curtain while the transoms are hid by a long ruffled lambrequin behind which the four window shades disappear.

The picture on the right shows the four window shades partly drawn.



Here, on the right, the four window shades have been pulled down all the way, completely hiding the 8-sash.



*Drapery Suggestions*

### Like Living Out-Of-Doors

Windows of the modern home are equipped with **AiR-Way Multi-fold Window Hardware**. Thus they may be thrown wide open to the gentle, cooling breezes, affording all the comforts of the outdoors while retaining the conveniences of the indoor rooms.

On stormy days and in winter, snug-fitting AiR-Way windows exclude all rain, wind and cold. They're absolutely weather-tight and rattle-proof when closed.

### Method of Operation

As the several windows are opened they follow each other across the opening until finally all of the sash are lined up compactly in a small space at end of the opening out of the way.

It is noted, especially, that each sash will remain in the position to which it is opened without shaking or rattling. You may have one, two or more windows opened without opening the entire series if desired.

### Special Locking Feature

As soon as the first sash is opened, even two or three inches, the second sash may be partly opened in the same way and this in turn releases the lock which holds the third sash and so on. But the sash must be opened in order. The advantage of this arrangement is that when

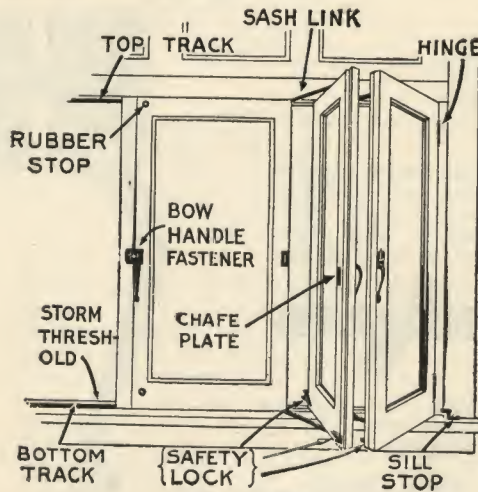
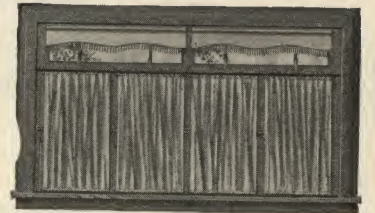
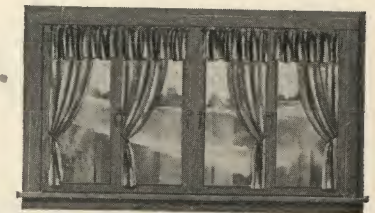


Fig. A-1434



*Drapery Suggestions*

the sash are all closed, locking the end sash locks the entire series against incorrect operation.

### Size Sash Should Be

"AiR-Way" hardware is applied to various numbers of sash which the builder may want to place in a row, but we recommend that not more than four sash of maximum width be installed to form a string sliding one way. Five sash may be used if the total width of the series does not exceed 8 feet. Height of the window does not affect the operation of this hardware, but the hardware is designed for sash not more than 12 square feet in area and maximum width of sash not to exceed 24 inches. It is advisable to keep each opening within the limitation of a span 11 feet in width for windows having transom sash when our standard design of transom bar is used, or 16 feet 6 inches for windows having no transom sash and a total vertical sash height of five feet.

### Does Not Interfere With Screens

It is an important advantage of the AiR-Way method of hanging windows, that they do not interfere with screens or storm sash. When ordinary sash are mounted to fold outside, it is impossible to use screens unless screens are mounted **inside**, in which case it is either necessary to move the screens in order to operate the windows or else to install an expensive sash operating device in the sill.

*Once seen, always desired. Sell the first set, the rest will sell themselves*



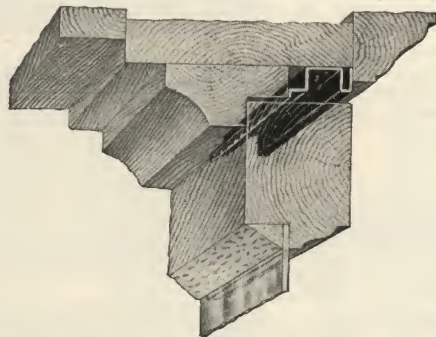


Fig. A-1435—Cross-section through sash and window frame at top showing installation of "AiR-Way" track above sash and tight application of sash.

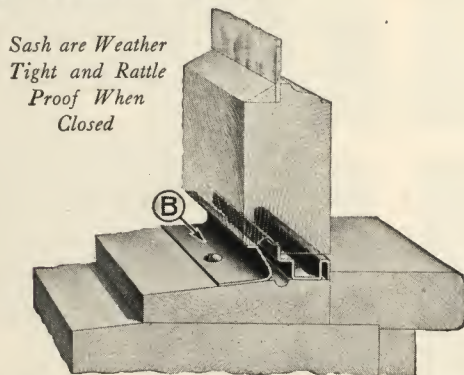


Fig. A-1436—Cross-section through sash and window frame at bottom showing installation of "AiR-Way" track below sash and tight application of sash using brass threshold or storm sill. Note arched groove in bottom of sash just back of threshold. This groove obviates the possibility of moisture following the bottom of the sash.

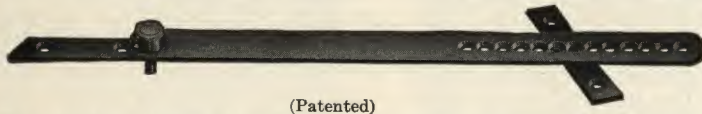


Fig. A-1437—Adjustable Sash Link. One of these links connects each sash, at the top and bottom, with the sash adjacent. The top sash link has a longer roller than the bottom sash link.

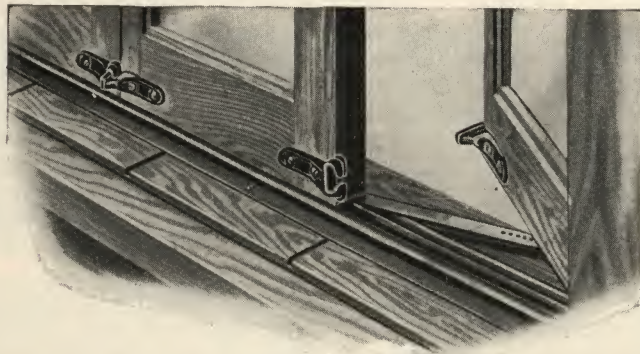


Fig. A-1438—Exterior view showing "AiR-Way" sash links which connect the series of sash. The link at the top of each sash is applied parallel with and works on the same principle as the link at the bottom of each sash. Also note metal track and safety locks. This "AiR-Way" equipment combines the features of smooth operation, complete air way, perfect insulation against wind and weather.

## R-W No. 312 Multifold Window Hardware

AS to the cost of the material, it does not cost much more, if any more, to put up "AiR-Way" windows than to put up the ordinary swing casements, provided they are equipped with casement openers and the same quality of hardware that we supply on the "AiR-Way" sets.

The finest "Air-Way" hardware is solid brass. Tracks and storm threshold are solid brass, and will, therefore, not rust or deteriorate.

Other parts of the hardware are made in three finishes; solid brass, brass plated and dead black, but for permanent satisfaction we recommend the set in solid brass.

### Mill Work

The operation of windows hung on "AiR-Way" Multifold Hardware is extremely simple, but it is, of course, necessary that the sash and frames should be properly made and the hardware properly put on. It is best that the sash and frames be made by the millman and that the sash be fitted in the frame and the hardware put on at the mill. The work can then be shipped to the job and erected easily into the outer frame. This insures a tight job and one that will operate smoothly.

We supply a full set of blue prints for the millman so that he will know exactly how to make the sash and frames and how to attach the hardware. It is not a difficult job if the instructions are followed.

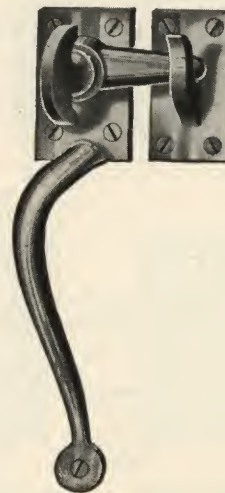


Fig. A-1439—Fastener with bow handle

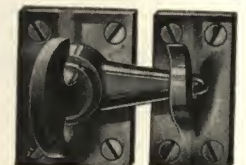


Fig. A-1440—Thumb Fastener

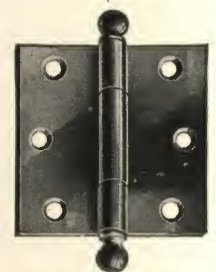


Fig. A-1441—Butt Hinge



Fig. A-1442—Safety Lock



Fig. A-1443  
Chafing Plate



Fig. A-1444  
Rubber Stop

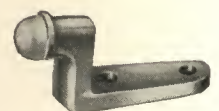


Fig. A-1445  
Sill Stop



# List Prices for Complete Sets of AiR-Way Hardware

Description	Weight Per Set	Finish No. 1	Finish No. 2	Finish No. 3
<b>Set No. 312-2</b> For Opening (between finished frames) Not Exceeding 4' 3" Wide by 5' High <b>2-Sash, Folding One Way</b> Same Hardware Can Be Used on Sash Opening to Right or to Left Tracks and Threshold are sent in 4' 3" lengths	11 lbs.	\$22.60	\$18.00	\$16.00
<b>Set No. 312-3</b> For Opening (between finished frames) Not Exceeding 6' 3" Wide by 5' High <b>3-Sash, Folding One Way</b> Same Hardware can Be Used on Sash Opening to Right or to Left Tracks and Threshold are sent in 6' 3" lengths	16½ lbs.	32.60	26.70	23.70
<b>Set No. 312-4½</b> For Opening (between finished frames) Not Exceeding 8' 6" Wide by 5' High <b>4-Sash, 2-Sash, Folding Each Way</b> Two No. 312-2 Sets Will Accomplish the same Results Tracks and Threshold are sent in 4' 3" lengths	22½ lbs.	45.20	36.00	32.00
<b>Set No. 312-4</b> For Opening (between finished frames) Not Exceeding 8' 3" Wide by 5' High <b>4-Sash, Folding One Way</b> Same Hardware Can Be Used on Sash Opening to Right or to Left Tracks and Threshold are sent in 8' 3" lengths	21¾ lbs.	42.60	35.40	31.40
<b>Set No. 312-5</b> For Opening (between finished frames) Not Exceeding 8' 3" Wide by 5' High <b>5-Sash, Folding One Way</b> Same Hardware Can Be Used on Sash Opening to Right or to Left Tracks and Threshold are sent in 8' 3" lengths	24 lbs.	51.60	43.10	38.10
<b>Set No. 312-6</b> For Opening (between finished frames) Not Exceeding 12' 6" Wide by 5' High <b>6-Sash, 3-Sash Folding Each Way</b> Two No. 312-3 Sets Will Accomplish the Same Results Tracks and Threshold are sent in 6' 3" lengths	33 lbs.	65.20	53.40	47.40
<b>Set No. 312-8</b> For Opening (between finished frames) Not Exceeding 16' 6" Wide by 5' High <b>8-Sash, 4-Sash Folding Each Way</b> Two No. 312-4 Sets Will Accomplish the Same Results Tracks and Threshold are sent in 8' 3" lengths	43¾ lbs.	85.20	70.80	62.80
<b>Set No. 312-10</b> For Opening (between finished frames) Not Exceeding 16' 6" Wide by 5' High <b>10-Sash, 5-Sash Folding Each Way</b> Two No. 312-5 Sets Will Accomplish the Same Results Tracks and Threshold are sent in 8' 3" lengths	48 lbs.	103.20	86.20	76.20

All sash MUST be of equal width, preferably 20 inches wide. UNDER NO CONSIDERATION should sash be over 24 inches wide. Direction Sheets furnished with every set. Blue Prints when requested. Sets are complete, containing all hardware required for installing. All Parts are packed in one box, except Brass Track and Brass Threshold which are bundled.

Please Order Separately for Each Opening

## Directions for Ordering Sample Order

1 Set No. 312-4½ for 1 opening 7' 9" wide with 4 sash, Finish No. 1.

1 Set No. 312-6 for 1 opening 12' 0" wide with 6 sash, three folding each way, No. 2 Finish.

## Discount

**Finishes**  
**Finish No. 1**—Safety Locks, Solid Brass, dull brass finish. Tracks and Thresholds, natural brass finish. All other parts brushed brass finish.  
**Finish No. 2**—Safety Locks, solid brass, dull brass finish. Tracks and Thresholds, natural brass finish. All other parts plated brushed brass finish.  
**Finish No. 3**—Tracks and Thresholds, natural brass finish. All other parts dull black, imitation Bauer-Barri finish.  
 A set of working Blue Prints giving Construction Data will be furnished upon request.

## Discount

## List Price of Parts

	Finish No. 1	Finish No. 2	Finish No. 3
No. 312 Bow Handle Fasteners, each.....	\$2.50	\$2.00	\$1.75
No. 312 Thumb Fasteners, each.....	1.80	1.10	.90
No. 312 Chafing Plates, each.....	.40	.30	.20
No. 312 Rubber Stops, each.....	.80	.60	.40
No. 312 Sill Stops, each.....	.80	.60	.40
No. 312 Safety Locks, each.....	1.60	1.20	.80
No. 312 Top Sash Links, each.....	1.25	1.00	.75
No. 312 Bottom Sash Links, each.....	1.25	1.00	.75
No. 312 Butt Hinges, per pair.....	2.60	.60	.60
No. 312 Storm Thresholds, per foot.....	.50		
No. 312 Lower Track, per foot.....	.80		
No. 312 Upper Track, per foot.....	.60		

A trial order of Assorted AiR-Way Sets should make you a life long friend of AiR-Way



## R-W No. 535 Folding Partition Door Hardware

Patented

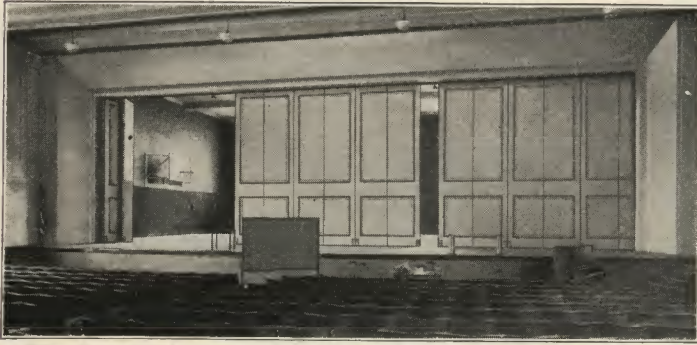


Fig. A-1446—Notice that the doors are so decorated as to make each pair appear as a single door



Fig. A-1450—No. 535 Equipped Doors will accommodate any opening, no matter how great its width!



Fig. A-1447—Metal Sheets on one side make doors Fire Retardant

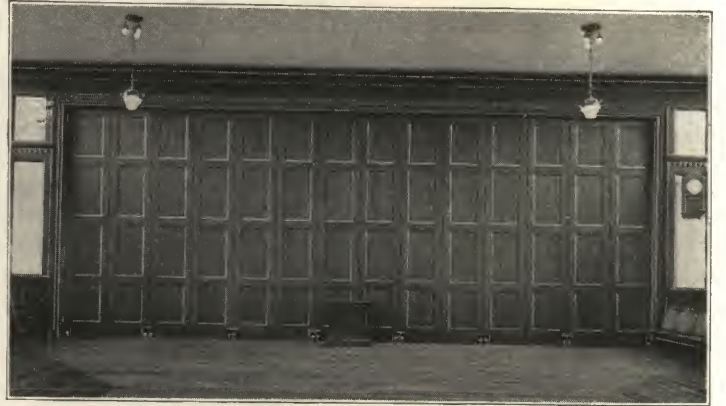


Fig. A-1451—This picture and the two below are of the same adjacent lodge rooms. Opening the doors converts them into one great auditorium.

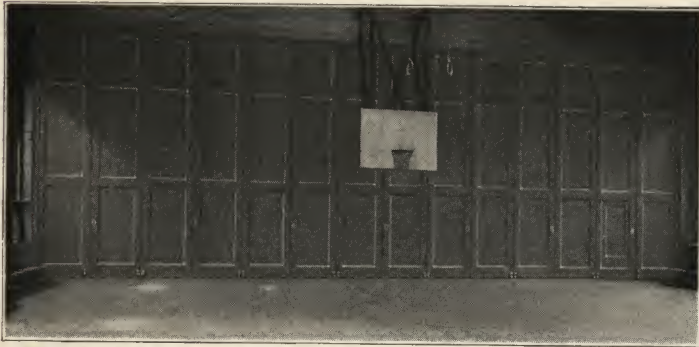


Fig. A-1448—The entire load is carried on the floor track, the upper track and rollers only serving to guide the top of the doors. Notice the Wicket door in the door second from the right.



Fig. A-1452—A unique feature of this installation is that two parallel series of doors are used, the air space between acting as a sound insulator, deadening the noise from the adjacent room.

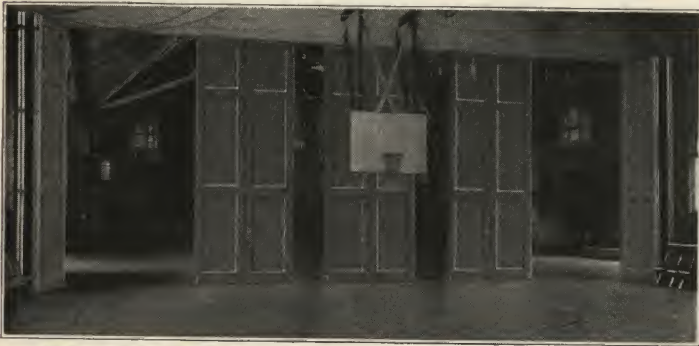


Fig. A-1449—The doors are hinged together in pairs and each pair is moved as an independent unit



Fig. A-1453—See how the doors disappear into wall pockets. The swing door, at the pocket, can be completely shut when the partition doors are fully opened or closed.



## R-W No. 535 Folding Partition Door Hardware Patented

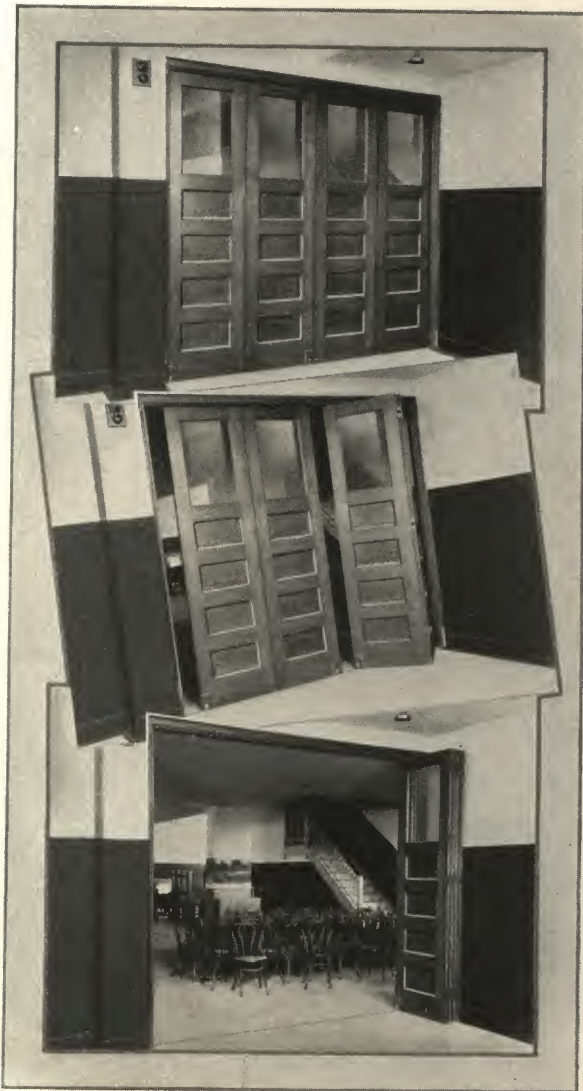


Fig. A-1454—Suitable for small openings. Any building, old or new, may have partition doors added to it at any time.



Fig. A-1455—Plate glass, leaded glass or blackboards, may be substituted for the wood panels of the doors if desired

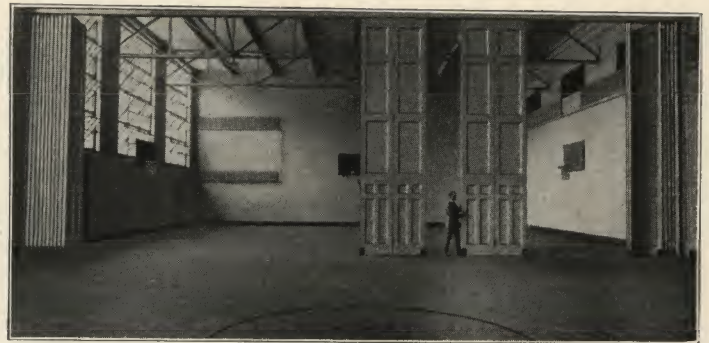


Fig. A-1456—The doors operate smoothly, quietly, easily. One man can quickly open or close an entire series of doors



Fig. A-1457—The second door from each end contains a Wicket door so that entrance may be made from one room to the other without disturbing the larger doors.

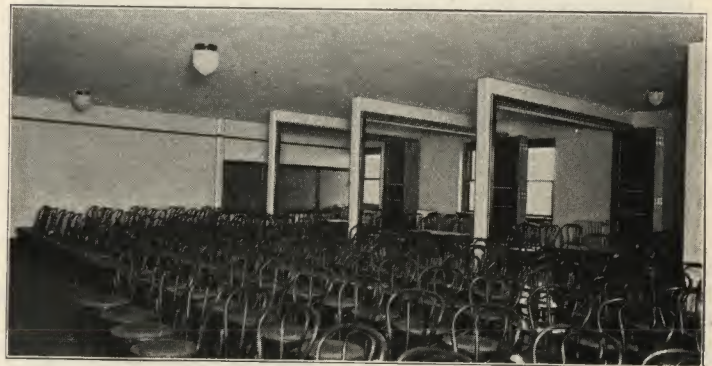


Fig. A-1458—There are thousands of No. 535 installations throughout the country, perhaps some in your own locality, may we tell you where?



Fig. A-1459—When all the doors open to one side, spring plates for compensating jamb strips are furnished. These keep the doors pressed tightly together when they are closed.



## R-W No. 535 Folding Partition Door Hardware (Continued)

Patented



Fig. A-1460—For high class and de luxe installations we recommend No. 535 hardware as it can be had in brass finish, with invisible hinges, thoroughly in keeping with real rich surroundings.

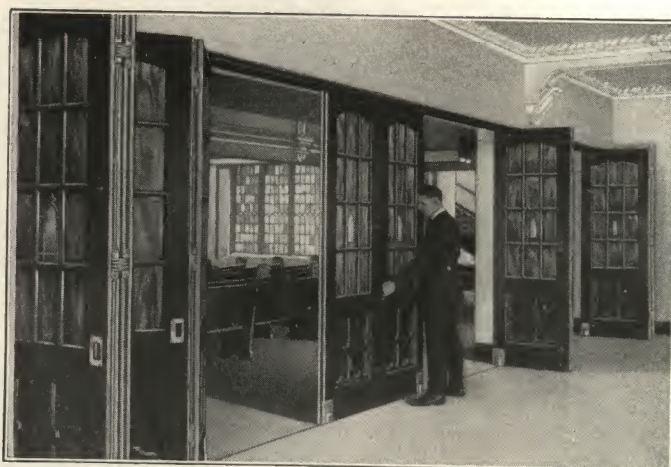


Fig. A-1463—A close up of the invisible hinges. They can not be seen when the doors are closed. When the doors are open the hinges permit of close folding of the doors and are not unsightly.



Fig. A-1461—An odd number of doors may be used in an opening if desired

The above photographs explain, perhaps better than words could, the method by which No. 535 Folding Partition Doors operate.

These are hinged together in pairs and each pair is operated as an independent unit, being moved and folded into place unhampered by the others.

The entire load is carried on the FLOOR track, the upper track only serving to guide the top of the doors.

The door plans on this page suggest different door arrangements. The width of the opening is immaterial as the method of operation (i.e., doors moving in pairs) allows for any number of doors to be used. An odd number of doors may be used if desired. (See Item entitled Passage Doors on page 27.)

When all the doors open to one side, spring plates for compensating jamb strips are furnished. This strip allows for a slight variation in width of doors due to shrinking or swelling. It will always keep the doors pressed tightly together when they are closed. We are also prepared to furnish details for compensating strip (patent pending) at center of opening when doors divide at the center.

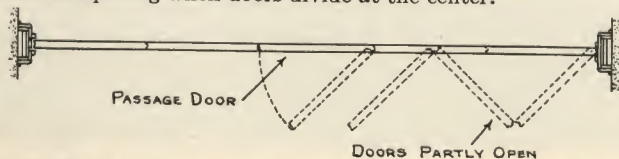


Fig. A-1462—A 5-door opening showing the odd door hinged to the second door on the right. This method of providing passage door is suitable for small doors only. Notice spring jamb at the left.



Fig. A-1464—Specify 535 equipment. It will justify your confidence

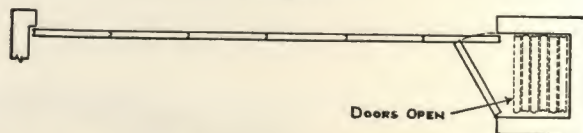


Fig. A-1465—See how the doors disappear into a Wall Pocket. Swing door can be completely shut when the Partition Doors are fully opened or closed.

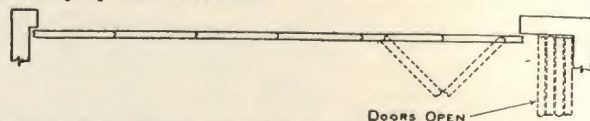


Fig. A-1466—Showing how doors stand behind a projection of the wall. As the first door on the right end must slide to get into the door space behind projecting wall, rollers are substituted for the pivots otherwise used on this door. Spring jambs are not necessary.

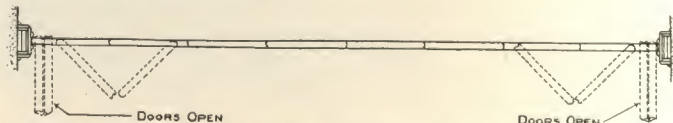


Fig. A-1467—Doors divide at the center. Half slide to the right, half to the left



## R-W No. 535 Folding Partition Door Hardware (Continued)

(Patented)

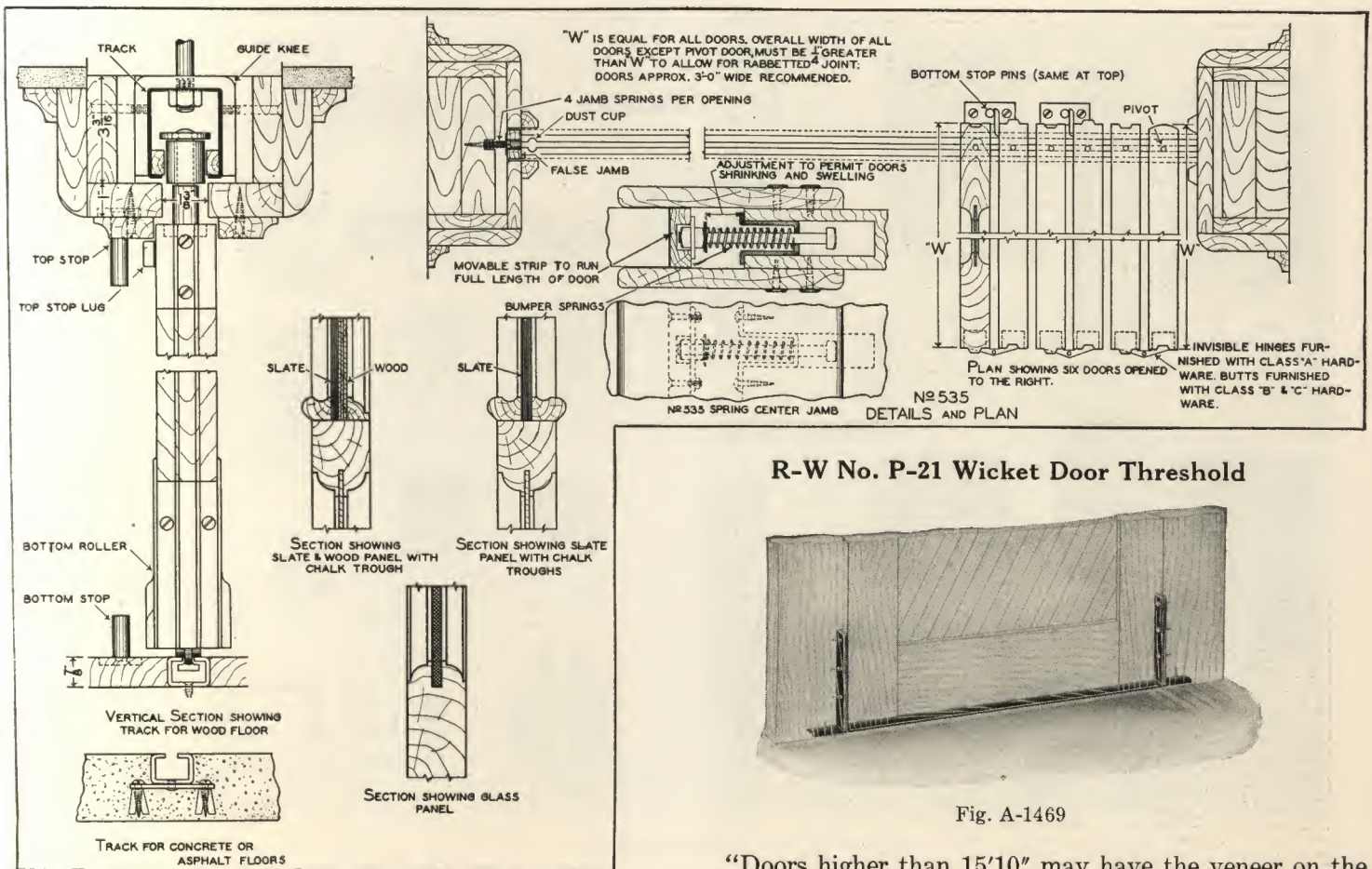


Fig. A-1468

For the convenience of the busy architect, we here give:

### Architectural Specifications of Wood Doors

#### For Local Sash and Door Companies

"All doors to be veneered on approved built-up cores, the veneering to be of———wood. The core as well as the veneer, to be thoroughly kiln dried, and on account of the nature of the hanging of the doors, same must be guaranteed against warping, as well as any other mechanical defect.

Doors up to 12' high to be  $1\frac{3}{4}$ " thick.

Doors from 12' to 15' high to be  $2\frac{1}{4}$ " thick.

Doors over 15' high to be 3" thick.

"The width of the doors can vary from 2'6" to 4' in width, but all doors must be of equal width over all, except the pivoted door which is to be  $\frac{1}{4}$ " narrower than the other doors. The extra  $\frac{1}{4}$ " in width is to allow for the male portion of the rabbett. Edges of the doors are to be finished with rabbetts as detailed on Richards-Wilcox Manufacturing Company's blueprints. One edge of the pivoted door is to be rounded instead of rabbetted.

### R-W No. P-21 Wicket Door Threshold

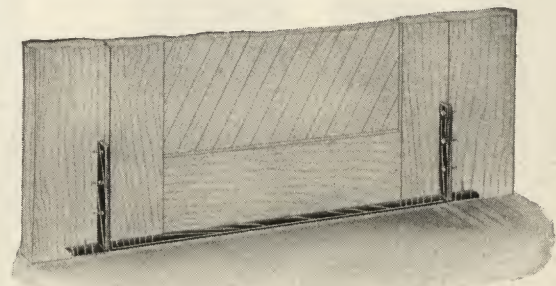


Fig. A-1469

"Doors higher than 15'10" may have the veneer on the stiles spliced, if it is impossible to get veneer of sufficient length in one piece."

The minimum width of door stiles is as given below.

#### Wicket Doors

When doors are large we recommend the use of Wicket Doors, which can be placed in any of the doors except the pivot door.

The minimum width of the Door Stile, beyond the edge of the Wicket Door should be:

$4\frac{1}{2}$ " for $1\frac{3}{4}$ " Doors	6" for $2\frac{1}{2}$ " Doors
$5\frac{1}{2}$ " for 2" Doors	6" for $2\frac{3}{4}$ " Doors
$5\frac{1}{2}$ " for $2\frac{1}{4}$ " Doors	6" for 3" Doors

Illustration (P-21), shows wicket door threshold.  
Wicket Door Hardware priced on Page 35.

#### Passage Doors

When the partition doors are small, one door in the opening can be used as a passage door from room to room when the partitions are closed.

There should then be an odd number of doors in the opening, the passage door being the odd door.

We recommend that the third door from the jamb be made the passage door. This door would then be hinged to the second door of the first pair of doors.

It will be necessary to shorten the top door stop on one side of the doors, so the end will be far enough from the jamb toward which the doors fold, to clear the passage door and permit it to swing.



## R-W No. 535 Folding Partition Door Hardware (Continued)

(Patented)

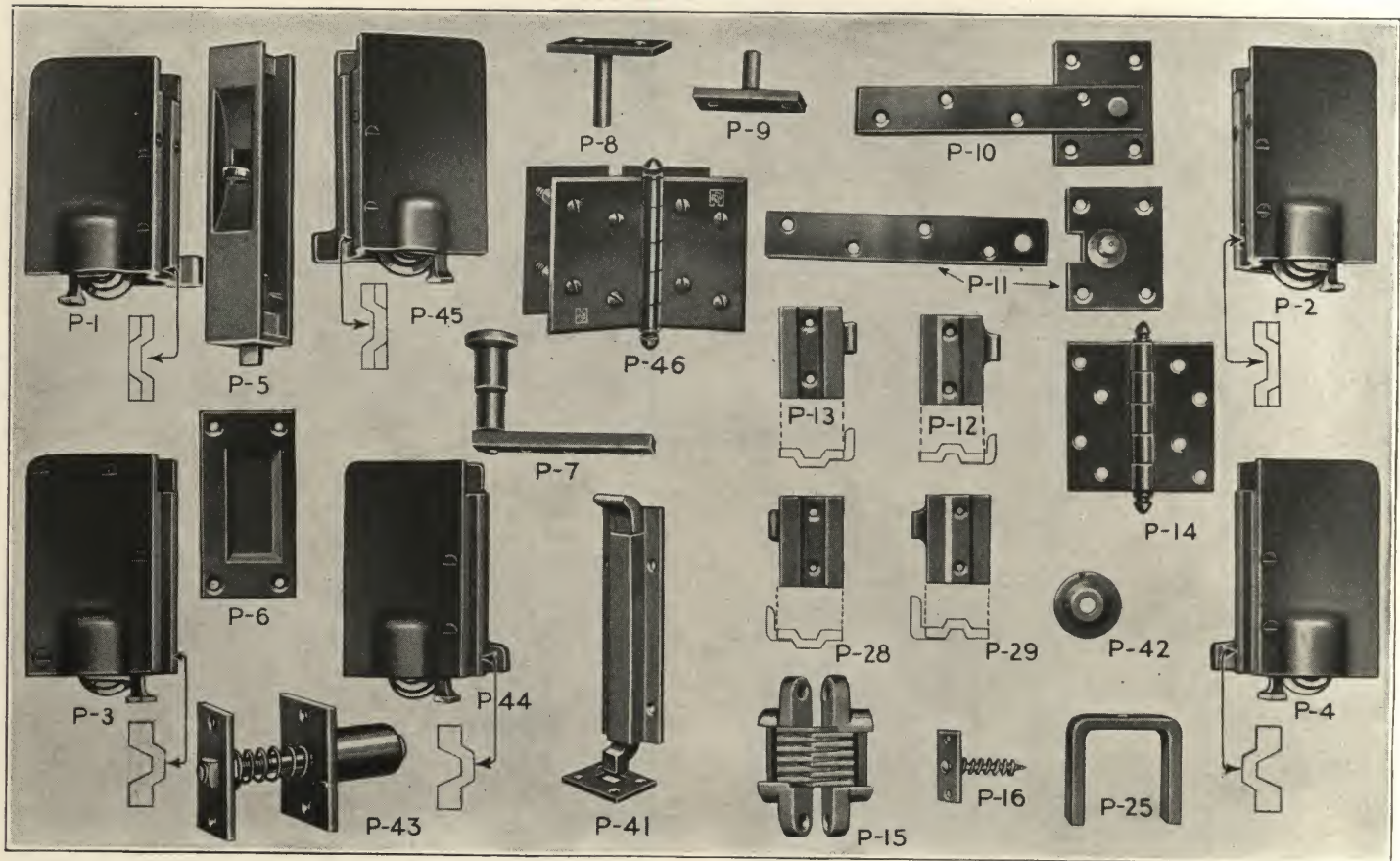


Fig. A-1470

The entire weight of the doors is carried by the floor track, the upper track and rollers only serve to guide the top of the doors.

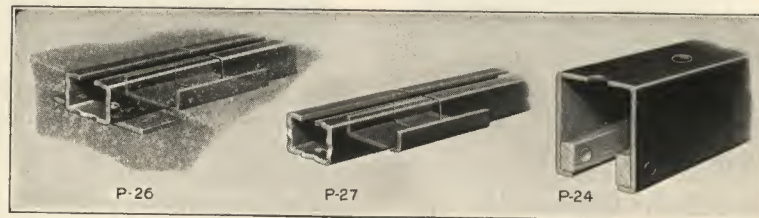


Fig. A-1471

### List of Parts

- P-1 \*Bottom Roller with Female Astragal, with Trip Lug. Right Hand.  
P-2 \*Bottom Roller with Female Astragal, less Trip Lug. Plate on opposite side has five screw holes similar to P-3. Also made with side plates reversed.  
P-3 \*Bottom Roller with Male Astragal, less Trip Lug. Plate on opposite side has two screw holes similar to P-2. Also made with side plates reversed.  
P-4 \*Bottom Roller with Male Astragal, with Trip Lug. Left Hand.  
P-5 \*Flush Bolt: One to each opening when doors all fold one way; Two to each opening when doors divide at center.  
P-6 Flush Pull. One required for every two doors.  
P-7 Top Guide Roller.  
P-8 Bottom Stop. Made in 2 sizes; 1 3/4" size for doors 1 3/4" to 2 1/4" thick; 3" size for doors 2 1/2" to 3" thick.  
P-9 Bottom Stop. Made in 2 sizes; 1 3/4" size for doors 1 3/4" to 2 1/4" thick; 3" size for doors 2 1/2" to 3" thick.  
P-10 Top Pivot. Made in 3 sizes: 1 3/4" size for doors 1 3/4" thick; 2" size for doors 2" and 2 1/4" thick; 3" size for doors 2 1/2" to 3" thick.  
P-11 Bottom Pivot. Made in 3 sizes: 1 3/4" size for doors 1 3/4" thick; 2" size for doors 2" and 2 1/4" thick; 3" size for doors 2 1/2" to 3" thick.  
P-12 \*Top Stop Lug with Male Astragal. Right Hand.  
P-13 \*Top Stop Lug with Female Astragal. Right Hand.  
P-14 †Loose Pin Butt Hinge 4" x 4" for doors 1 3/4" and 2" thick, 5" x 5" for doors 2 1/4" to 3" thick.  
P-15 †Invisible Hinge. Furnished in two sizes: No. 1 size for doors 1 3/4" and 2" thick; No. 2 size for doors 2 1/4" to 3" thick.  
P-16 End Jamb Spring.  
P-21 Wicket Door Threshold. (See previous page). Used only when a Wicket Door is built into the second door from the jamb. In ordering be sure to give a full dimen-

- sion sketch of the main door and the wicket door. Made in two sizes: 1 3/4" size for doors 1 3/4" to 2 1/4" thick; 2 1/2" size for doors 2 1/2" to 3" thick. Lengths as required.  
P-24 Top Track.  
P-25 Guide Track Knee.  
P-26 Bottom Track for Concrete Floor.  
P-27 Bottom Track for Wood Floor.  
P-28 \*Top Stop Lug with Female Astragal. Left Hand.  
P-29 \*Top Stop Lug with Male Astragal. Left Hand.  
P-41 Surface Door Bolt.  
P-42 Separator. Made in two sizes: 1 3/4" size for doors 1 3/4" and 2 1/4" thick; 2 1/2" size for doors 2 1/2" to 3" thick.  
P-43 Center Jamb Spring.  
P-44 \*Bottom Roller with Male Astragal with Trip Lug. Right Hand.  
P-45 \*Bottom Roller with Female Astragal, with Trip Lug. Left Hand.  
P-46 †Surface Hinge with Back Plate.

**Note—Finishes:** The above hardware is furnished regularly in two finishes, as shown on opposite page.

Many of the parts are made right or left hand (plans on page 26, Fig. Nos. A-1462, A-1465, A-1466, show right hand doors and when ordering be sure to specify which hand is desired and give thickness of doors.

\*These parts are made in six sizes for doors; 1 3/4", 2", 2 1/4", 2 1/2", 2 3/4" and 3" thick.

†We furnish three hinges to each hinged joint up to 15' high. If doors are over 15' high extra hinges, not included in price, should be ordered.



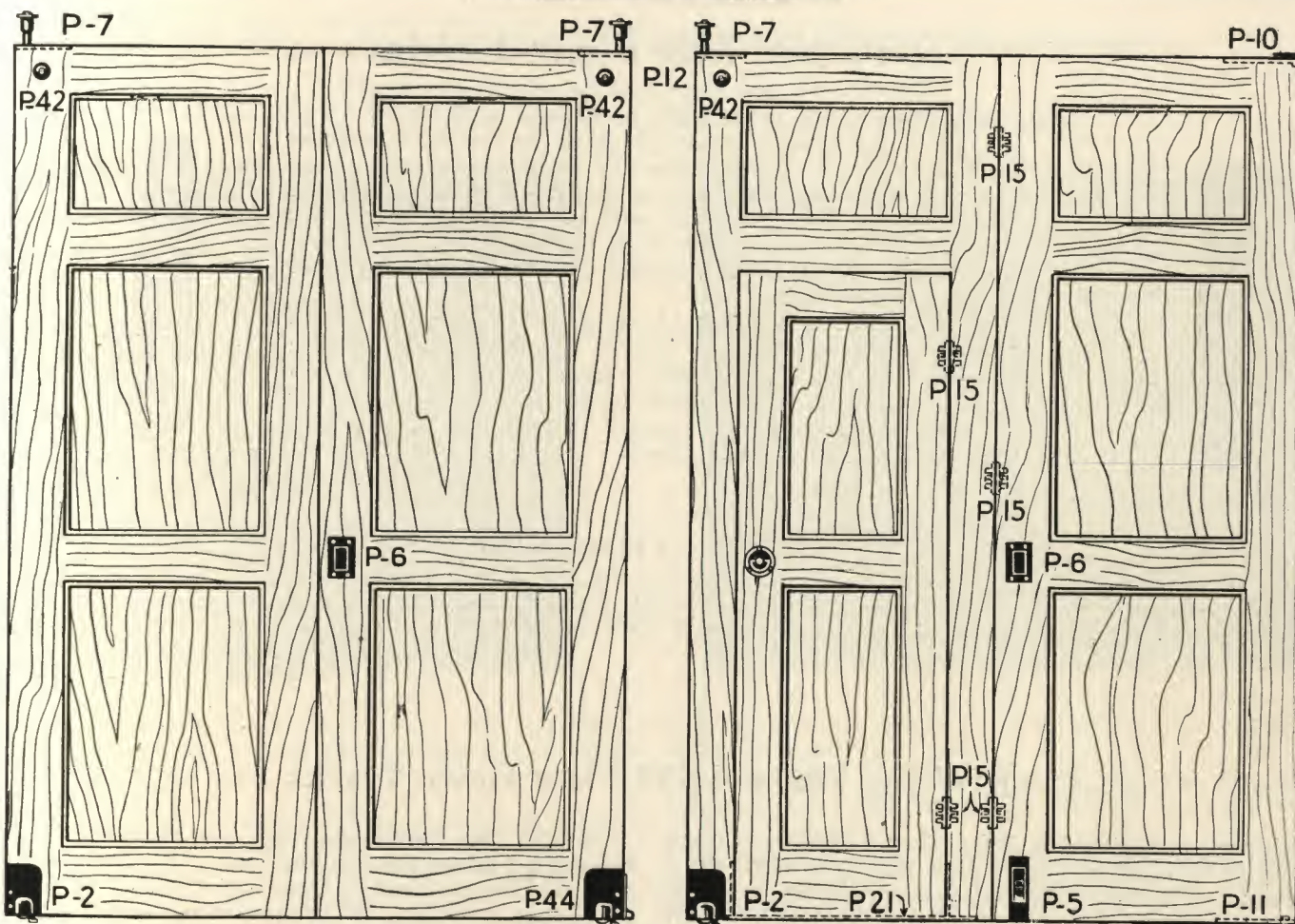


Fig. A-1472—Showing the proper location on the doors, and the catalog numbers, of 535 Partition Door Hardware

## Complete Sets of 535 Hardware. List Price per Doors of Various Thicknesses

Thickness of Doors.....	1 3/4"	2"	2 1/4"	2 1/2"	2 3/4"	3"
Class A Hardware with Invisible Hinges.....	\$40.00	\$46.00	\$52.00	\$58.00	\$64.00	\$70.00
Class C Hardware with Butt Hinges.....	20.00	24.00	28.00	32.00	36.00	40.00
Class D Hardware with Invisible Hinges.....	25.00	29.00	33.00	37.00	41.00	45.00
Class E Hardware with Surface Hinges with Back Plates.....	40.00	46.00	52.00	58.00	64.00	70.00
Class F Hardware with Surface Hinges with Back Plates.....	25.00	29.00	33.00	37.00	41.00	45.00

No. 535 Wicket Door Hardware (less Latch) with brass finished invisible or surface hinges, per set.....	\$13.00
No. 535 Wicket Door Hardware (less Latch) with black finished surface hinges, per set.....	10.00
No. 535 Wicket Door Hardware (less Latch) with black finished butt hinges, per set.....	8.25

### Class A Hardware

The Top Pivots, Bottom Pivots (except base plate), bottom stops, top stops, top guides are made of steel, polished and brass plated, brush brass finish. All bottom rollers, flush bolts, flush pulls, top stop lugs are solid brass, polished, brush brass finish. Tracks, jamb springs, guide track knees and base plate of bottom pivot are steel, dead black finish. Furnished with invisible hinges.

### Class C Hardware

The Top Pivots, Bottom Pivots, top stops, top guides are made of steel, dead black finish. All bottom rollers, flush bolts, flush pulls, top stop lugs, are malleable iron, dead black finish. Tracks, jamb springs, guide track knees are steel, dead black finish. Furnished with butt hinges.

### Class D Hardware

Same as Class C except has Invisible Hinges instead of butts.

### Class E Hardware

Same as Class A except has Surface Hinges with Back Plates instead of invisible hinges.

### Class F Hardware

Same as Class C except has Surface Hinges with Back Plates instead of butt hinges.

### Discount.....

### Height and Thickness of Doors

Maximum heights of doors recommended for various thicknesses: 1 3/4" thick, 12' high; 2" thick, 14' high; 2 1/4" thick, 16' high; 2 1/2" thick, 18' high; 2 3/4" thick, 20' high; 3" thick, 24' high. Thicker doors than those recommended above, for the various heights, can be used but the maximum thickness of doors for which No. 535 hardware is made is 3 inches.

### Wicket Doors

When Wicket Doors are required it is necessary to use a threshold as P-21 and one pair of hinges. These are not included in the regular set of hardware. Lock or Latch for Wicket Door not furnished by R-W.

### Directions for Ordering

**Always State:**—Class of Hardware Desired, Width of Opening, Number of Doors, Thickness of Doors, Are all of the Doors to Fold to One Side (if so to which side), or are they to Divide at the Center; Half Folding Each Way? Which Type of Floor Track is Wanted?

Always Send Sketch Showing the Number of Doors and How They Are to Fold (See Door Plans on Page 26).



## R-W No. 739 Floor Guides

The Floor Guide is set into the bottom of the door. The number of floor guides used should equal the number of hangers used on the doors. The guides should be located directly in line with the hangers on folding doors. It is self adjusting. The rollers are held in contact with the guide by light spring pressure; swivels, when used with folding doors. Minimum thickness of doors  $1\frac{3}{8}$ ". Suitable for use with all kinds of sliding partition doors.

The No. 739-1 Floor Guide is designed for use with No. 739-1, -2 or -3 floor guide tracks. The No. 739-04 and -4 floor guides have hooks at the bottom which makes it impossible for them to leave the track. These two guides run in No. 535 floor guide track. Guides are wrapped in packages of one each with screws. Finish black Japan.



No. 739-1 Floor Guide



Nos. 739-04 and -4 Guides

### List Prices of Floor Guides

No. 739-1 Floor guide, (used with No. 739-1, -2 or -3 tracks) weight 1 lb. Each.....	\$1.05
No. 739-04 (for doors $1\frac{3}{8}$ " and $1\frac{1}{4}$ " thick) used with No. 535 track, weight $1\frac{1}{4}$ lbs. Each.....	1.60
No. 739-4 (for doors 2" or more in thickness) used with No. 535 track, weight $1\frac{1}{4}$ lbs. Each.....	1.60

Discount.....

## R-W No. 739 and 535 Floor Guide Tracks

Each running foot of No. 739-1, -2 or -3 floor guide track consists of two pieces, and is used with No. 739-1 floor guide only. The No. 739-3 steel track when set on top of the floor, forms a raised threshold with beveled strip on each side. When more than one door is used as parallel or flush doors, flat track is used in the center; the space between is filled with  $\frac{3}{8}$ " hardwood flooring. If the room is floored with  $\frac{3}{8}$ " flooring, the beveled track can be left out and only flat track used which should be put in place before the floor is laid when the track will be flush with the floor. The No. 739 type of floor guide track is used in connection with R-W No. 237 installations and sliding parallel door equipment.

The No. 535 floor guide track is a one piece track and this is also priced per running foot. It is used with R-W No. 535 Sliding, Folding Door Equipment. It is used in connection with No. 739-04 and 739-4 floor guides only. Width of track is  $1\frac{1}{4}$ ", height  $\frac{7}{8}$ ".

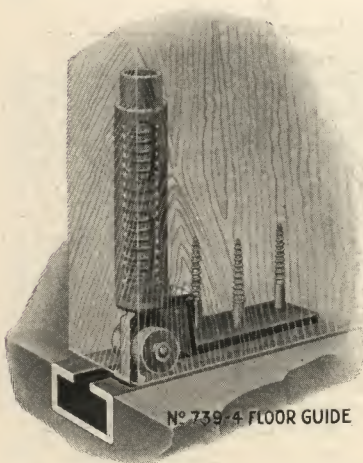
When ordering, send sketch or floor plan of floor guide track with dimensions. State whether to be raised or flush threshold. Give the number of doors. Parallel or flush doors required two guides to each door, accordion doors one guide to each door. Finish, black japan.

### List Prices

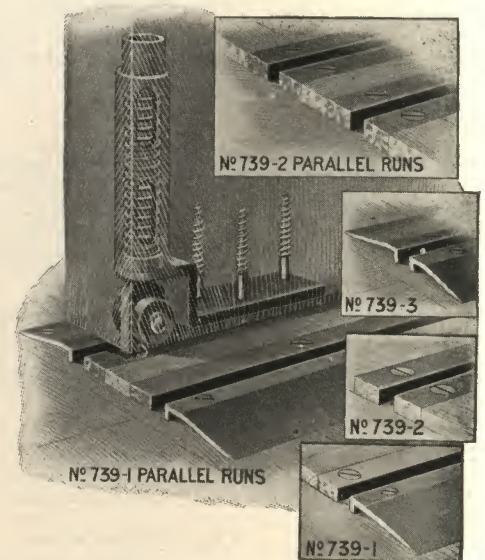
*No. 739-1-TK combination bevel and flat floor guide track, per running foot, $\frac{3}{4}$ lb. Per foot.....	\$0.16
*No. 739-2-TK flat floor guide track, per running foot, 1 lb. Per foot.....	.16
No. 739-3-TK bevel floor guide track, per running foot, $\frac{1}{2}$ lb. Per foot.....	.16
No. 535 floor guide track, per foot, $1\frac{1}{2}$ lbs. Per foot.....	1.50

Discount.....

**Note**—\*If desired for parallel door installations, order two or three runs of track, depending upon the number of parallel doors used.



No. 739-4 FLOOR GUIDE





## R-W No. 237 Folding Partition Door Hardware

Hardware for Small and Medium Sized Doors

Hardware for Real Large and Heavy Doors Shown on Preceding Pages



To a casual observer, the operation of No. 535 Partition-Doors, as described on the previous pages, and of No. 237 Partition Doors is identical.

Both styles consist of a series of doors that slide and fold in pairs independently of each other; they may be drawn past columns before they are folded; and may be used where it would be objectionable to have part of the doors extend beyond the wall line on one side, as is necessary when using ordinary accordion folding doors.

The information and plans as given on page 26 apply as much to the one style as to the other.

Close examination and comparison of these two styles will however reveal the difference between them.

There is a real need for the subdividing of large rooms in churches, colleges, high schools, music schools, hospitals, gymnasiums, lodges, Y. M. C. A's, hotels, etc., into smaller rooms. In almost every instance either No. 535 or No. 237 could be used to advantage. There are thousands of

these installations thruout the country, perhaps some in your own locality.

No. 535 Hardware was primarily intended for use on real large and heavy doors—No. 237 for small and medium height doors.

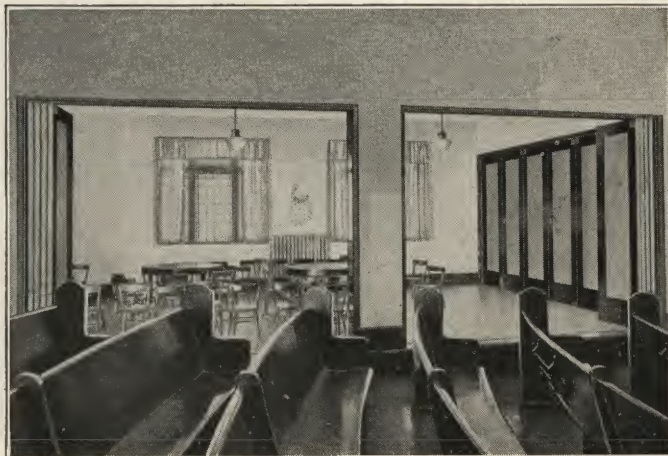
The former is more satisfactory for high doors because the entire weight is carried in the floor track, the upper track serving only to guide the top of the doors.

The latter (No. 237) has the weight of the doors carried by HANGERS in the UPPER track; the bottom or floor track serving only to guide the doors.

For doors of medium size either style will give perfect satisfaction, one operating as easily and as smoothly as the other.

For real high class and de luxe installations, however, we recommend the No. 535 as it can be had in brass finish, with invisible hinges and is more in keeping with real rich surroundings.

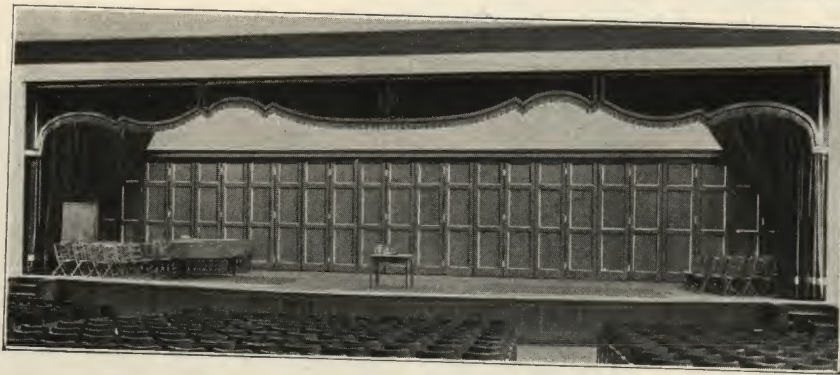
Nevertheless, for the average installation, No. 237 is every bit as satisfactory as is No. 535.



*These doors are hinged together in pairs and slide and fold together to one side*



## R-W No. 237 Folding Partition Door Hardware (Continued)



NO. 237 doors, as has been said before, are hinged together in pairs and only two doors are moved at a time. Generally, the door nearest the jamb toward which the doors fold, is pivoted to the floor and to the head jamb. Where it is desired to close the doors into a pocket or have them stand behind a projection of the partition wall, each pair of doors may be fitted with hangers at both ends.

The number of stops and plates (see details and plan on next page) required for each opening, equals the number of pairs of doors sliding to one side of opening, less one, excepting when pivots are omitted. In that case one is required for each pair of doors.

One hanger and one floor guide are required for each door. When the first door is pivoted, pivots are used instead of the hangers for that door.

Doors approximately three feet wide are recommended.

Track Brackets should be placed from 2 to 2½ feet apart.

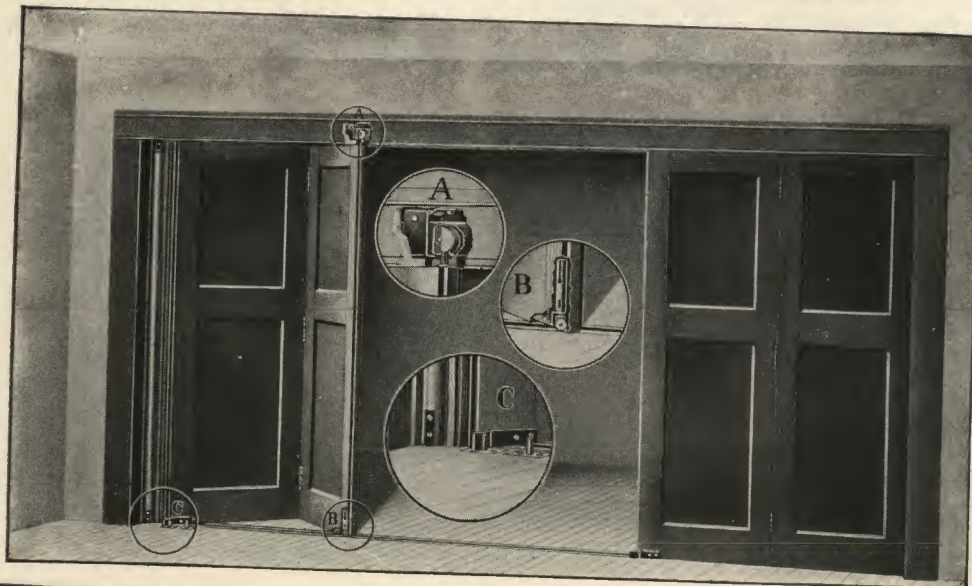
When all of the doors open to one side, spring plates for compensating jamb strip are furnished. This strip allows for a slight variation in width of doors due to shrinking or swelling. It will always keep the doors pressed tightly together when they are closed.

When half of the doors open to the right and half to the left, a stop to be attached to soffit at center of opening is furnished.

Bumper Shoes are furnished for bottom of door where the stop plate of one door comes into contact with the next door during the opening operation.

Floor Guide and Floor Guide Track is thoroughly illustrated and described on page 30.

One and one-half pair of hinges (page 34) and one flush pull (page 34) are required for every two doors. One No. 237 surface bolt (page 34) is required for each opening when all doors fold one way, two required for each opening when doors divide at center.



More information concerning No. 237 Hardware is given on the following two pages.

Fig. A-1473

A—(In circle) shows Bracket, Track and Hanger.

B—Shows Floor Guide and Floor Guide Track.

C—Shows Pivot Plate, Stops and Stop Plate.

In the illustration to the left all six doors, in pairs, slide and fold to the left.



## R-W No. 237 Folding Partition Door Hardware (Continued)

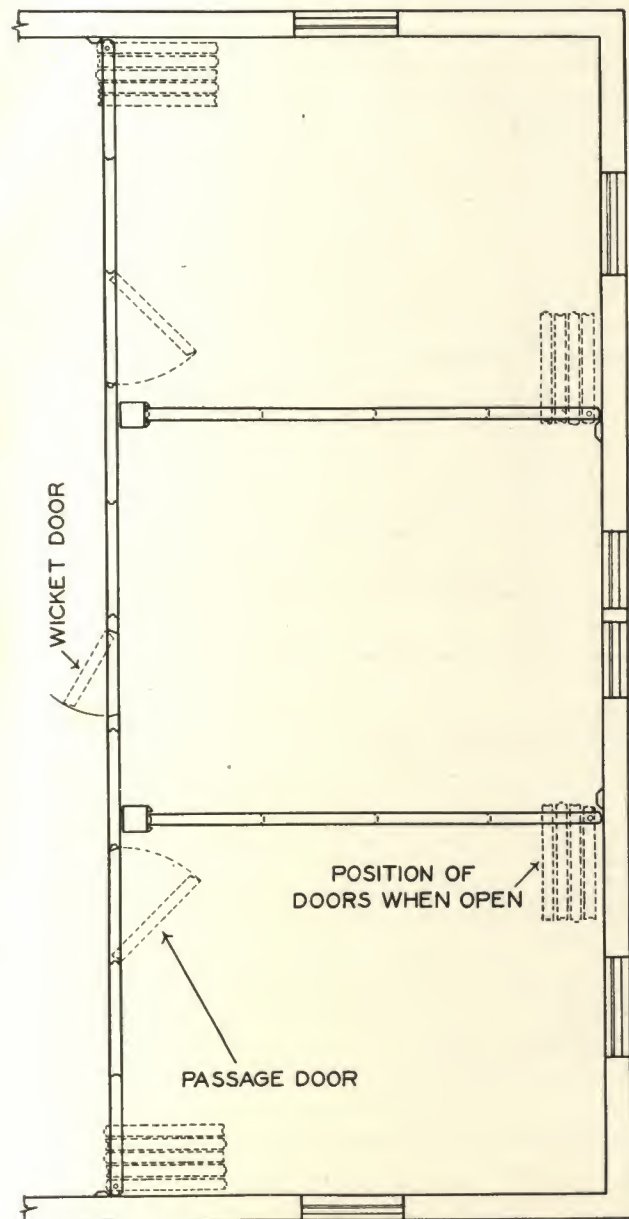
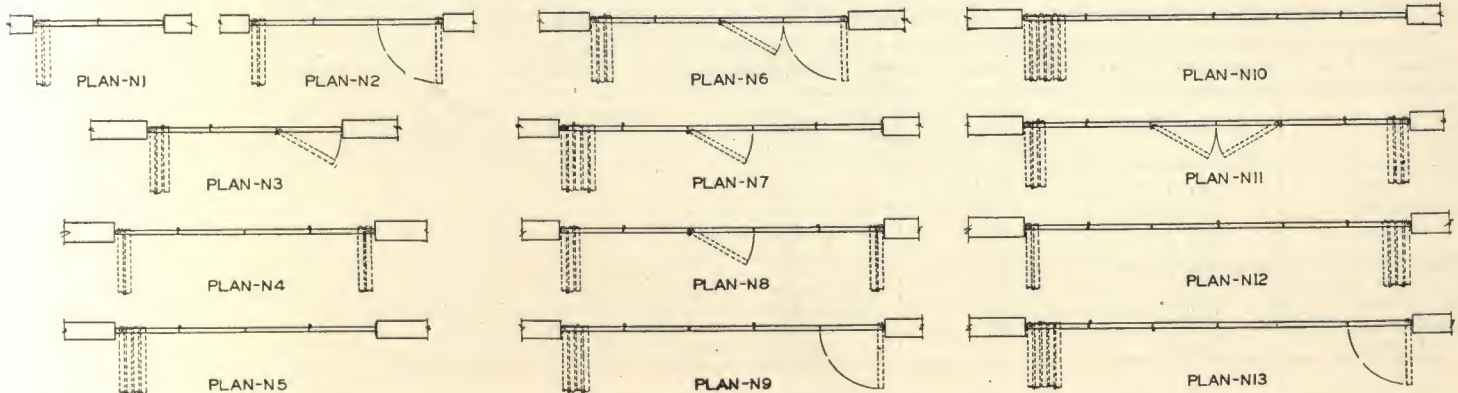
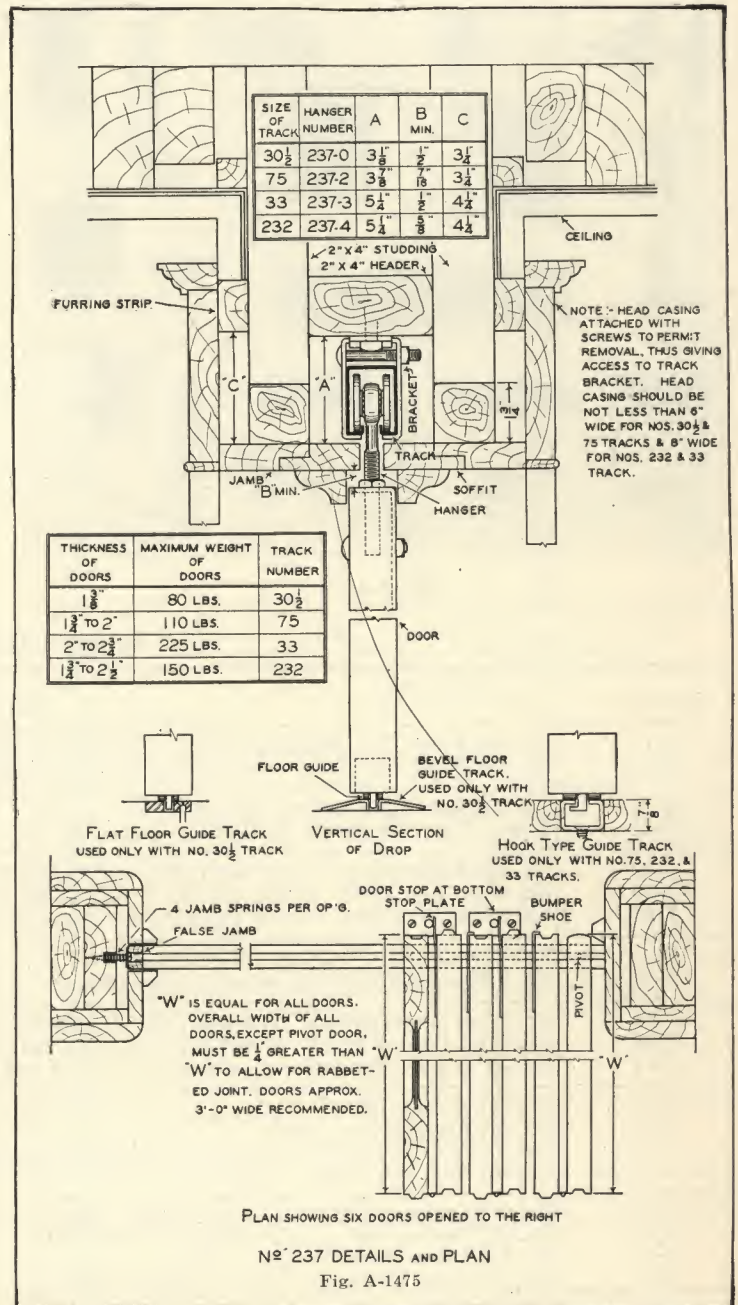


Fig. A-1474—Schematic plan showing partitions of different widths





## R-W No. 237 Folding Partition Door Hardware (Continued)

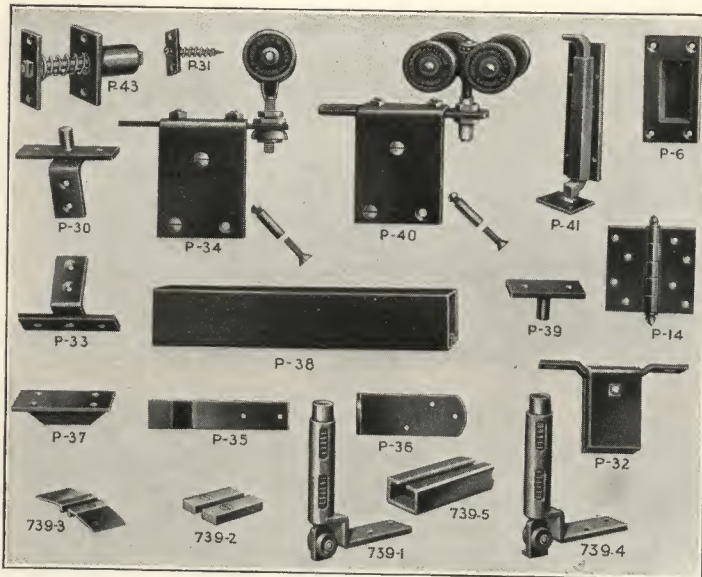


Fig. A-1476

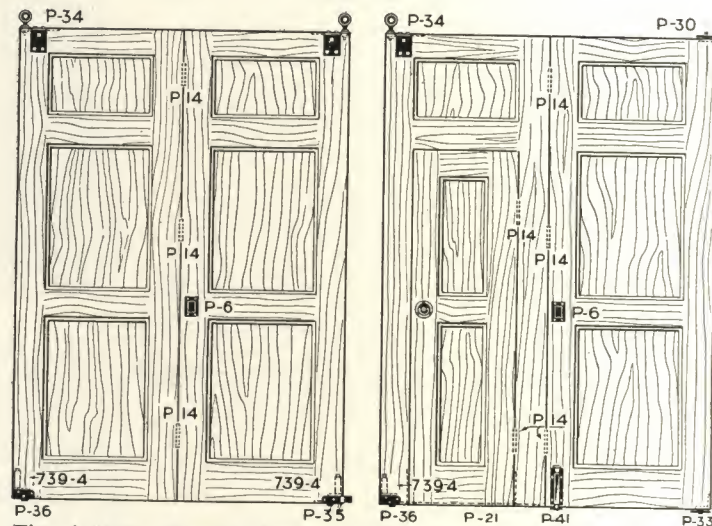


Fig. A-1477—Showing the proper location on the doors, and the catalog numbers, of 237 Partition Door Hardware

### List Price of Miscellaneous Parts

Part No.	Description	Wt., Lbs.	Price
P-6	No. 535 Flush Pull, Malleable iron, black finish, for doors 1 3/4" or more in thickness. Each.....	2 3/8	\$4.00
P-6	No. 535 Flush Pull, Solid brass, brushed finish, for doors 1 3/4" or more in thickness. Each.....	2 3/8	5.00
P-14	No. 135 Butt Hinges, listed on page 483.		
P-21	Wicket Door Threshold, less latch (see page 27).....		8.00
P-30	No. 237-0 Top Pivot. (Used with 237-0 and 237-10 Hangers). Each.....	1 1/2	1.50
P-30	No. 237-2 Top Pivot. (Used with 237-2 and 237-12 Hangers). Each.....	5 5/8	2.00
P-30	No. 237-3 Top Pivot. (Used with 237-3 or -4 and 237-13 or -14 Hangers). Each.....	3 3/4	4.00
P-31	No. 535 End Jamb Spring. Each.....	1 1/8	.40
P-32	No. 3 Style Split Brackets, listed on page 195.		
P-33	No. 237-0 Bottom Pivot. (Used with 237-0 and 237-10 Hangers). Each.....	1 1/2	1.50
P-33	No. 237-2 Bottom Pivot. (Used with 237-2 and 237-12 Hangers). Each.....	5 5/8	2.00
P-33	No. 237-3 Bottom Pivot. (Used with 237-3 or -4 and 237-13 or -14 Hangers). Each.....	3 3/4	4.00
P-36	No. 237 Bumper Shoe. Each.....	1 1/4	.12
P-37	No. 237 Center Stop. Each.....	3 3/4	.80
P-38	Track, listed on page 193, See table below for sizes of track for different weights and thicknesses of doors		
P-39 and P-35	No. 237 Stop and Plate. Per set.....	3/4	1.50
P-41	No. 237 Surface Bolt. Dead black finish. Each.....	1 1/2	1.50
P-41	No. 237 Surface Bolt. Polished Brush Brass Finish. Each.....	1 1/2	2.00
P-43	No. 535 Center Jamb Spring. Each.....	1 1/2	.40
739	No. 739 Floor Guide and Track. (See page 30)		

Note—Top rail of door should not be less than 5 inches wide.

Discount.....

### List Price of Hangers (P-34 and P-40)

Hangers are fitted with vertical screw adjustment and ball-bearing swivel drop forged pendant. Are attached to door with sleeve nuts tapped to receive a screw in each end, so that screw heads appear on both sides of door. Packed one hanger with screws in metal-edge box.

Part No.	Hanger No.	For Track No.	Wheels	Bearing	Thickness of Door, In.	Weight Lbs.	List Price Each
P-34 2-wheel Hanger	237-0	30 1/2	1 3/4 in. diam. Steel	Ball	1 3/8	1 1/8	\$4.50
	237-2	75	2 1/8 in. diam. Steel	Ball	1 3/4 to 2 1/4	2 1/4	4.50
	237-3	33	3 in. diam. Steel	Roller	2 to 2 3/4	5 5/8	9.00
	237-4	232	3 in. diam. Steel	Roller	1 3/4 to 2 1/2	4 3/4	8.00
P-40 4-wheel Hanger	237-10	30 1/2	1 3/4 in. diam. Steel	Ball	1 3/8	2	\$5.00
	237-12	75	2 1/8 in. diam. Steel	Roller	1 3/4 to 2 1/4	3	5.00
	237-13	33	3 in. diam. Steel	Roller	2 to 2 3/4	8 1/2	9.50
	237-14	232	3 in. diam. Steel	Roller	1 3/4 to 2 1/2	7 1/2	8.50

Discount.....



## R-W No. 237 Folding Partition Door Hardware (Continued)

List Prices for Hardware for Various Openings as shown by Plans on Page 33

Plan No. See Page 33	Using Track No.	With Flush Pulls, Surface Bolts, Butts		Without Flush Pulls, Surface Bolts, Butts	
		*Exposed Parts Plated	Exposed Parts Black	*Exposed Parts Plated	Exposed Parts Black
N1	30 1/2	\$25.00	\$20.50	\$17.40	\$15.00
	75	27.00	22.50	19.40	17.00
	33	44.00	39.50	36.40	34.00
	232	40.00	35.50	32.40	30.00
N2	30 1/2	32.60	25.85	21.20	17.60
	75	35.00	28.25	23.60	20.00
	33	53.75	47.00	42.40	38.75
	232	49.00	42.25	37.60	34.00
N3	30 1/2	32.60	25.85	21.20	17.60
	75	35.00	28.25	23.60	20.00
	33	53.75	47.00	42.40	38.75
	232	49.00	42.25	37.60	34.00
N4	30 1/2	50.00	41.00	34.80	30.00
	75	54.00	45.00	38.80	34.00
	33	88.00	79.00	72.80	68.00
	232	80.00	71.00	64.40	60.00
N5	30 1/2	50.00	41.00	34.80	30.00
	75	54.00	45.00	38.80	34.00
	33	88.00	79.00	72.80	68.00
	232	80.00	71.00	64.40	60.00
N6	30 1/2	40.20	31.20	25.00	20.20
	75	43.00	34.00	27.80	23.00
	33	63.50	54.50	48.40	43.50
	232	58.00	49.00	42.80	38.00
N7	30 1/2	57.60	46.35	38.60	32.60
	75	62.00	50.75	43.00	37.00
	33	97.75	86.50	78.80	72.75
	232	89.00	77.75	69.60	64.00

Plan No. See Page 33	Using Track No.	With Flush Pulls, Surface Bolts, Butts		Without Flush Pulls, Surface Bolts, Butts	
		*Exposed Parts Plated	Exposed Parts Black	*Exposed Parts Plated	Exposed Parts Black
N8	30 1/2	\$57.60	\$46.35	\$38.60	\$32.60
	75	62.00	50.75	43.00	37.00
	33	97.75	86.50	78.80	72.75
	232	89.00	77.75	69.60	64.00
N9	30 1/2	57.60	46.35	38.60	32.60
	75	62.00	50.75	43.00	37.00
	33	97.75	86.50	78.80	72.75
	232	89.00	77.75	69.60	64.00
N10	30 1/2	75.00	61.50	52.20	45.00
	75	81.00	67.50	58.20	51.00
	33	132.00	118.50	109.20	102.00
	232	120.00	106.50	97.20	90.00
N11	30 1/2	65.20	51.70	42.40	35.20
	75	70.00	56.50	47.20	40.00
	33	107.50	94.00	84.80	77.50
	232	98.00	84.50	75.20	68.00
N12	30 1/2	75.00	61.50	52.20	45.00
	75	81.00	67.50	58.20	51.00
	33	132.00	118.50	109.20	102.00
	232	120.00	106.50	97.20	90.00
N13	30 1/2	70.10	56.60	47.30	40.10
	75	75.50	62.00	52.70	45.50
	33	119.75	106.25	97.00	89.75
	232	109.00	95.50	85.80	79.00

Note—Locks and Latches for passage doors are not included in above prices. Exposed parts can be furnished in Solid Brass if desired, see table below.

Discount.....

### List Price of Hardware Per Door

Sets for Track No.	Thickness of Doors, in.	Maximum Weight of Doors	Weight of Hardware per Door	*Exposed Parts Solid Brass		*Exposed Parts Plated		Exposed Parts Black	
				Price of Hardware per Door Except Passage Door	Extra Price for Each Passage Door	Price of Hardware per Door Except Passage Door	Extra Price for Each Passage Door	Price of Hardware per Door Except Passage Door	Extra Price for Each Passage Door
30 1/2 75	1 3/8 1 1/4 to 2	80 lbs. 110 lbs.	13 lbs. 17 lbs.	\$18.25 19.25	\$13.35 13.75	\$12.50 13.50	\$7.60 8.00	\$10.25 11.25	\$5.35 5.75
				27.75 25.75	15.50 14.75	22.00 20.00	9.75 9.00	19.75 17.75	7.50 6.75
33 232	2 to 2 3/4 1 1/4 to 2 1/2	225 lbs. 150 lbs.	30 lbs. 25 lbs.						

### List Price of Sets, Less Flush Pulls (P-6), Surface Bolts (P-41) and Butt Hinges (P-14)

30 1/2 75	1 3/8 1 1/4 to 2	80 lbs. 110 lbs.	12 lbs. 16 lbs.	10.50 11.50	5.00 6.00	8.70 9.70	3.80 4.20	7.50 8.50	2.60 3.00
				20.00 18.00	7.75 7.00	18.20 16.20	6.00 5.20	17.00 15.00	4.75 4.00
33 232	2 to 2 3/4 1 1/4 to 2 1/2	225 lbs. 150 lbs.	29 lbs. 24 lbs.						

Note—Top rail of door should not be less than 5 inches wide. \*Unless otherwise specified black finish will be furnished.

Discount.....

### Directions For Ordering

State width of opening, number of doors; thickness of doors; are all of the doors to fold toward one side or are they to divide at the center, half folding each way. On small size doors using No. 237-0 Hangers, state which type of floor guide track is wanted, No. 739-2 or No. 739-3. (See Page 30). State what finish exposed parts are to have.

### Wicket Doors

When partition doors are large we recommend the use of a Wicket Door, which can be placed in any one of the partition doors, except the pivot door. The minimum width of the Door Stile, beyond the edge of the Wicket Door should be: 5 1/2" for doors 1 3/8" thick or 6" for thicker doors. Illustration (P-21) on page 27, shows Wicket Door Threshold.

### List Price

No. 237 Wicket Door Hardware (less Latch) with brass finished invisible or surface hinges, per set. .... \$13.00  
No. 237 Wicket Door Hardware (less Latch) with black finished surface hinges, per set. .... 10.00  
No. 237 Wicket Door Hardware (less Latch) with black finished butt hinges, per set. .... 8.25

Discount.....

### Passage Doors

When the partition doors are small, one door in the opening can be used as a passage door from room to room when the partition is closed. There should then be an odd number of doors in the opening, the passage door being the odd door. We recommend that the third door from the jamb be made the passage door. This door would then be hinged to the second door of the first pair of doors.

It will be necessary to shorten the top door stop on one side of the doors, so the end will be far enough from the jamb toward which the doors fold, to clear passage door and permit it to swing. In this case, four-wheel hangers as P-40 are used on the door adjoining the passage doors.

Specify No. 237 Equipment—Its' operation will please you!



## Sliding Accordion Partition Door Hardware, Nos. 135, 335, 137

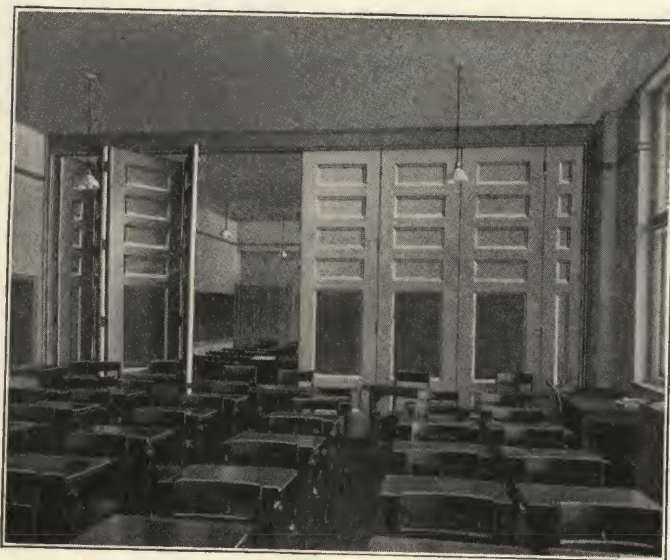


Fig. A-1478—Class-Room separated from adjoining Class Room by Partition Doors



Fig. A-1481—Note the Blackboards in the Panels of the Partition Doors



Fig. A-1479—It is often convenient to have Partition Doors in a Lodge Hall



Fig. A-1482—Doors Wide Open, showing Banquet Hall with Kitchen in the Rear

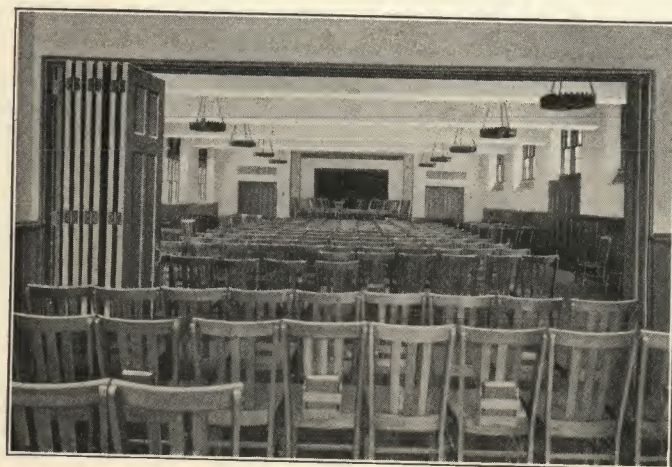


Fig. A-1480—Many Sunday Schools are rendered more efficient by the use of R-W Partition Doors



Fig. A-1483—A Teachers' Room which can quickly be made a part of the Church Parlors



## Sliding Accordion Partition Door Hardware (Continued)

THE views on this and the previous page graphically show how large rooms may quickly be transformed into smaller rooms, or vice versa.

Sliding Accordion Door Partitions are particularly adapted for use in Sunday School Rooms, Y. M. C. A.'s, Industrial Schools, Lodge Halls, Hotel Dining and Sample Rooms, and other places of like character.

These partitions may be constructed in old buildings as well as in new ones.

### Operations of Doors

All of the doors can be folded to one side or they may be divided at center and half the doors folded to each side of the room, as in Fig. A-1485. When opened, the doors fold compactly against the wall and no pocket is required.

### Half Doors

A half door is required adjoining the jamb toward which the doors fold. By referring to Fig. A-1485 it will be seen that where all the doors fold to one side one half door is required, but when divided at center and folded toward both sides two half doors are necessary. The half door, so called, is really less than half the width of the full size doors.

### Width of Doors

A sufficient number of doors should be used so that no door will exceed 3 feet in width. The exact width of the doors is determined by four conditions: 1st, the distance from the center of the hinge pin to the edge of the door; 2nd, by the thickness of doors; 3rd, by the number of doors, and 4th, by style of hanger used.

To determine width of full size doors (when all doors fold to one side) add dimension "B" (from table, shown below) to clear width of opening (i. e., actual space to be filled by the doors) and divide this sum by the number of full size doors plus  $\frac{1}{2}$ .

### Example

Clear width of opening = 12'1"; thickness of doors = 2 inches; number of full size doors = 4; "B" for loose pin butts (from table) =  $1\frac{1}{4}$  inches;  $12'1" + 1\frac{1}{4}" = 146\frac{1}{4}$  inches;  $146\frac{1}{4} \div 4\frac{1}{2} = 32\frac{1}{2}$  inches, width of full size doors.

### Width of Half Doors

Width of half door =  $\frac{1}{2}$  width of full size door, less "B" from table. In the above example,  $32\frac{1}{2} \div 2 = 16\frac{1}{4}$  inches =  $\frac{1}{2}$  width of full size door.  $16\frac{1}{4} - "B" = 16\frac{1}{4} - 1\frac{1}{4} = 15$  inches, width of half door.

When doors divide at the center proceed as above except base calculations on one half the width of opening and divide by one half the number of doors.

### Tongue and Groove Stiles

The use of doors having tongue and groove stiles is recommended, as this will produce a much tighter partition.

Doors of any standard thickness may be used, this depending upon their size and other special conditions.

### Butt Hinges

Use  $1\frac{1}{2}$  pair of hinges to each hinge joint.

As may be seen from the table below, the use of tight pin butts enables the hinge pin in some cases to be set very close to the edge of the doors because it is not necessary to make allowance for the removal of the hinge pin. Butts in the sizes listed are considered suitable for ordinary wood doors of the given thickness, but for extra high doors or doors constructed of materials which considerably increase their weight, a larger size door hanger should be used, and this necessitates the use of larger butts, as given in the table in the line corresponding with the hanger to be used. No. 135 Butt Hinges are listed on page 483.

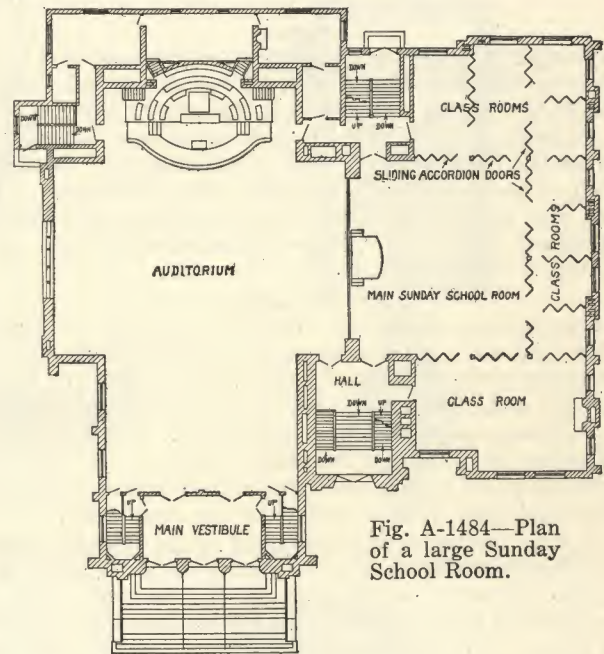


Fig. A-1484—Plan of a large Sunday School Room.

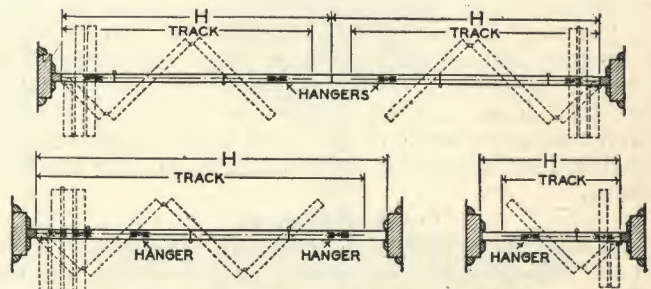


Fig. A-1485—Plans show space allowed at end of Tracks for Insertion of the Hangers.

In calculating the width of the doors, the quantity B should be taken from the same line in the table in which the size of butt is given and not from the line which gives the thickness of the door.

### Surface Hinges

Flat surface hinges may be used if desired so long as the size door hanger listed for given thicknesses of doors is followed and the hinges are of such dimensions that the space between the doors when folded is not less than that given in the table below, for tight pin butts. In using larger hangers than those listed for the different thickness doors, surface hinges are impracticable unless they are offset. The dimension B for calculating the width of the door will then be one-half the thickness of the door plus half the space between the doors when folded with the particular style of hinge used.

Table of Sizes and Distances for Placing Tight and Loose Pin Butts with Thickness of Doors

Hanger No.	Thickness of Doors, Inches	Size of Butts, Inches	Distance from Center of Hinge Pin to Edge of Door "A"		Distance from Edge of Half Door To Center Line of Hanger Track "B"		Space Between Doors When Folded "C"		"E" Distance from Top of Soffit to Bottom of Header, Inches	"F" Distance from Top of Door to Top of Soffit, Inches		"J" Distance from Top of Jamb to Bottom of Furring Strip, Inches
			Loose Pin Butts, Inches	Tight Pin Butts, Inches	Loose Pin Butts, Inches	Tight Pin Butts, Inches	Loose Pin Butts, Inches	Tight Pin Butts, Inches		$\frac{1}{4}$ -inch Soffit	$1\frac{1}{8}$ -inch Soffit	
135-0	$1\frac{3}{8}$	3 x 3	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{1}{4}$
135-1	$1\frac{1}{4}$	$3\frac{1}{2} \times 3\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{1}{4}$
135-1	2	4 x 4	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{1}{4}$
135-1	$2\frac{1}{4}$	4 x 4	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{1}{4}$
135-2	$2\frac{1}{2}$	5 x 5	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$5\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$4\frac{3}{4}$
335	$1\frac{3}{8}$	3 x 3	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{1}{4}$
335	$1\frac{1}{4}$	$3\frac{1}{2} \times 3\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{1}{4}$
137-0	$1\frac{3}{8}$	3 x 3	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{1}{4}$
137-1	$1\frac{1}{4}$	$3\frac{1}{2} \times 3\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{1}{4}$
137-2	2	4 x 4	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{1}{4}$
137-2	$2\frac{1}{4}$	4 x 4	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{1}{4}$



## Sliding Accordion Partition Door Hardware

(Continued)

### Hangers

The hangers for accordion doors are of two general types, viz., two-wheel and four-wheel. The two-wheel hangers are designed for use on each full size door, but the four-wheel hangers are attached to each alternate door, beginning with the door farthest from the half door. Generally speaking, the four-wheel hangers are preferable. The plans in Fig. A-1485 show the correct number and location of four-wheel hangers for different numbers of doors. Half doors require no hangers.

### Service Doors

It is sometimes desirable to have a passage or service door between the two rooms, and to accomplish this the two methods given in Figs. A-1487 and A-1488 are in use. Fig. A-1487 is a plan and elevation of a partition consisting of four full-size doors and two half doors. The left half of the partition is hung as described above. At the right side, instead of attaching the hanger to I, the door farthest from the half door, it is attached to the next door.

The door I is then free to be used as an ordinary swing door. This method is the more common and gives a reasonable degree of satisfaction on narrow doors, but for wider doors it is subject to difficulty from the door dragging on the floor. It is also necessary to use a little more care when folding the doors, especially if floor guides are not in use. The second method, Fig. A-1488, can sometimes be used to good advantage, and is perhaps the better of the two where conditions permit. This plan and elevation shows two full size and one half door folding toward one side and a separate swing door hinged to the opposite jamb. The swing door is used for service independent of the folding doors.

### Track Required

When all the doors fold to one side, a length of track equal to the width of the opening, less 8 in., is required. The 8-in. space is convenient for inserting or removing the hangers from the track. When doors fold toward both sides of the opening a 1-ft. space may be left at the center between the two runs of track.

### Bracket Spacing

The track brackets are of a type which will allow the removal of the track if necessary, and should be spaced from 24-in. to 30-in. centers excepting first two or three brackets over the half door. These should be spaced from 12-in. to 18-in. centers because of the additional load to be supported at this point when the doors are folded. Use the closer spacing of brackets for heavy doors.

### Overhead Construction

A vertical cross-section showing typical overhead construction for supporting track is designated as Fig. A-1489. A header to which the track brackets are to be bolted is attached to the studding a suitable distance above the soffit. (See Fig. A-1489.)

The soffits and casings should be attached with screws, as shown in the illustration, so they may be removed to gain access to the track. Head casing not less than 6" wide is required for the small sizes of track, but with the largest size, the width of casing should not be less than 8". Allow  $\frac{1}{4}$ " clearance between top of doors and bottom of soffits.

Fig. A-1490 illustrates another method of construction which is sometimes used. In this the track brackets are attached directly under the ceiling or beam. The track is then enclosed with a steel casing which is attached to

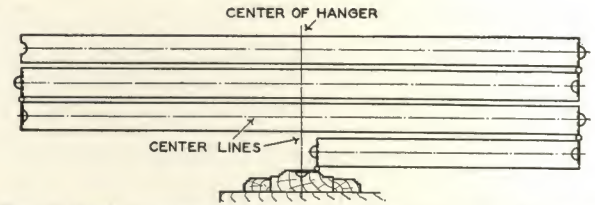


Fig. A-1486—Diagram for properly attaching the Hangers

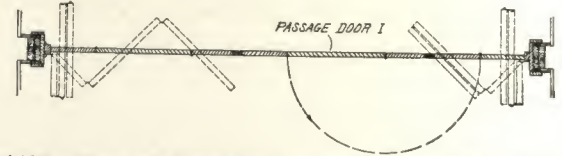


Fig. A-1487—Plan of Partition having four full-sized Doors and two Half Doors

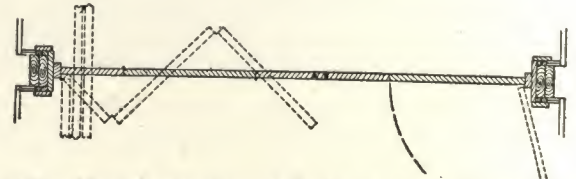


Fig. A-1488—Plan showing two full-sized and one Half Door folding toward one side and a separate Swing Door hinged to opposite Jamb

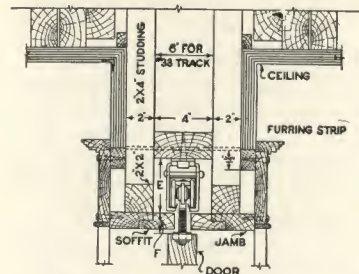


Fig. A-1489—Cross-Section showing typical Overhead Construction for Supporting Track.

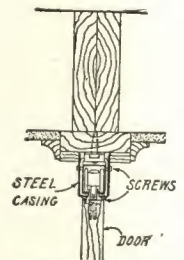


Fig. A-1490—Another method of Construction sometimes used.

the brackets with small machine screws, the brackets having been previously tapped to receive the trim. This method is particularly suitable when the partitions are applied to old buildings, but is also desirable in new buildings because of the easy accessibility to all the fixtures.

### Flush Pulls

Ordinarily flush pulls are not used. If desired, one flush pull may be used in each full-sized door, alternating them on opposite sides of the doors. The pull should be on the opposite side of the door from the hinge pin.

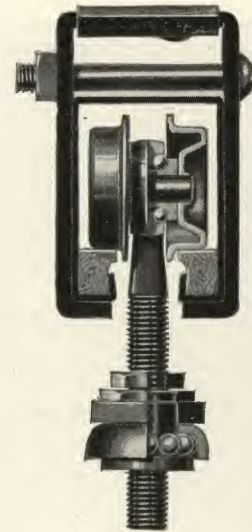
### Flush Door Bolts

A Flush Door Bolt should be used at the bottom of each door to give the required rigidity to the partition. (Flush Bolt illustrated and priced on page 463).

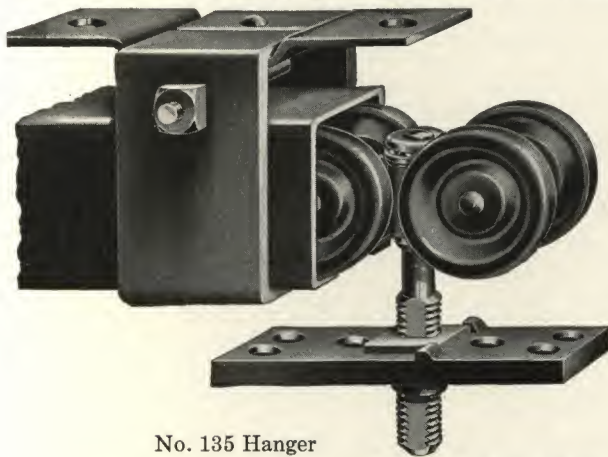
### Floor Guides

R-W No. 739 Floor Guides as shown on page 30 are sometimes used. These serve to steady the doors in operation, but are not essential to a satisfactory installation. One should be located in the bottom of each alternate door in line exactly under the center of the hanger pendant. When using floor guides, a type of surface floor bolt which will not interfere with the guide strips, should be selected. (See page 463 for Surface Bolt).





No. 335 Hanger. View at Right Shows Cross-Section of Hanger with No. 526 Wood Lined Track and No. 3 Split Center Bracket



No. 135 Hanger



No. 137 Hanger

## List Price of Hangers

Hanger No.	For Track No.	WHEELS		Bearing	Weight, Each Lbs.	List Price, Each	Thickness of Doors, Inches	Maximum Weight of Doors
		Diameter, In.	Regular					
135-0	30½	1¾	Steel	Ball	2	\$3.00	1⅜	80 lbs.
*135-1	75	2⅛	*Steel	Roller	2¼	3.50	1¾, 2 & 2¼	110 lbs.
*135-2	33	3	*Steel	Roller	6½	5.00	2½	225 lbs.
†335	526	1⅞	Steel	Ball	1¼	4.00	1⅜ to 2¼	110 lbs.
137-0	30½	1¾	Steel	Ball	1¼	2.50	1⅜	80 lbs.
†137-1	75	2⅛	Fibre	Ball	1½	3.00	1¾	110 lbs.
†137-2	75	2⅛	Steel	Ball	2	3.20	1¾, 2 and 2¼	110 lbs.
137-3	33	3	Steel	Roller	3½	4.50	2¼ to 3	225 lbs.

\*Nos. 135-1 and 135-2 Hangers can be furnished with fibre wheels on special order.

†No. 137-2 Steel Wheel Hanger is recommended and will be furnished unless otherwise specified.

†The door plate of No. 335 Hanger is 1⅝" wide. When used on doors 1⅝" thick, the edges of plate and the swivel ball-bearing are visible. Brass side plates can be furnished to cover the ball-bearing swivel if so ordered at list price of 60 cents per pair.

### Directions for Ordering

Always specify by number, the hangers, track and brackets desired.

Track for doors opening one way should be as long as opening is wide, less eight inches; for doors opening two ways, dividing at the center, two runs of track, each one-half width of opening less six inches.

Bracket spacing, see table on page 37. Doors should not exceed 3 feet in width.

In ordering, state number of full size doors and half-doors, width of opening and the thickness of doors. See pages 37 and 38 for example.

**Note**—One No. 135 Hanger used on every other door, beginning with door farthest from half-door. **Exception**—See Figs. A-1487 and A-1488 on page 38 and described on same page under heading of Service Doors.

One No. 335 Hanger used on every other door, beginning with door farthest from half-door. **Exception**—See Fig. A-1487 and A-1488 on page 38 and described on same page under heading of Service Doors.

One No. 137 Hanger should be attached to each full size door.

(Over)



# Richards-Wilcox

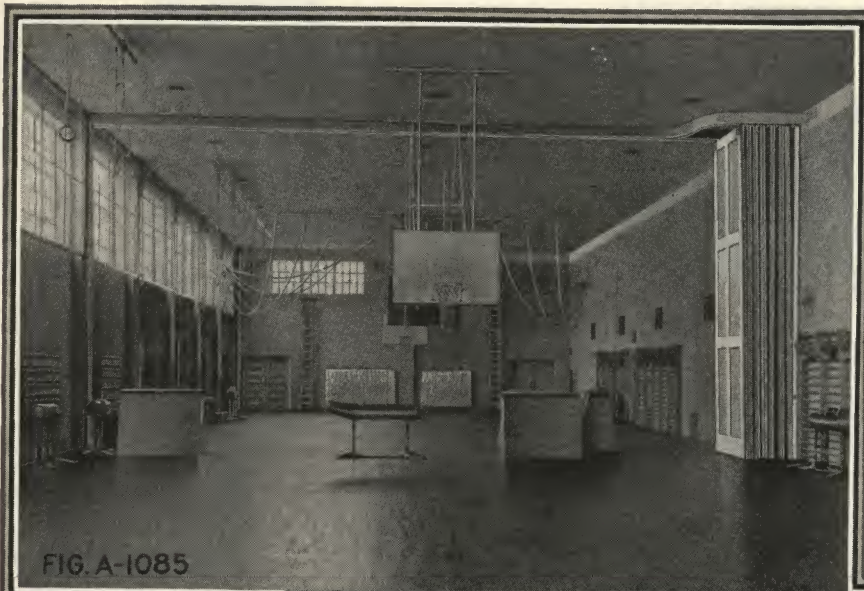
## Sliding-Flush Partition Door Hardware

**R-W No. 442**

Patented

The weight of the doors is carried by the overhead track and hangers.

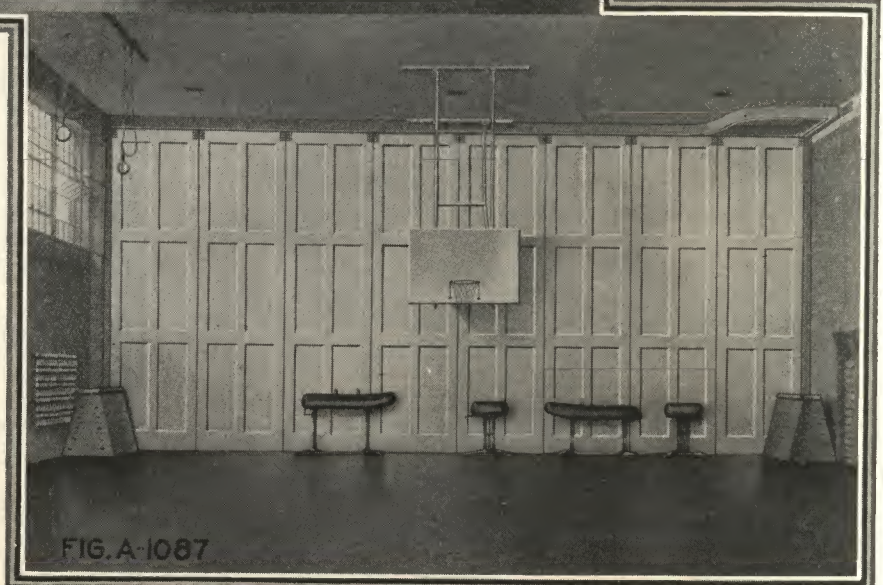
No floor guides or track are required.



Wicket doors may be placed in the larger doors if desired.

Bottom of doors are held in place with Flush Door Bolts (see page 463).

This hardware is suitable for doors weighing up to 500 pounds each.





R-W No. 442

## Sliding-Flush Partition Door Hardware

Patented

**W**HEN, for one reason or another, it is desirable to use wider doors than would be possible were No. 535 doors used (for No. 535 equipment see pages 24 to 29 inclusive), then this equipment, No. 442, may be considered.

Due to the unusual width of 442 doors much wider black boards may be built into them, when desired, than is possible when using 237 or 535 equipment.

In the south and southern countries where many shopkeepers throw open the whole front of their stores by means of partition doors, 442 equipment will be found to be particularly efficient.

As can be seen by the photos on the opposite page, each door is a separate unit, and as such is moved into place. The bottoms of the doors are held in place by flush door bolts (see page 463), and no floor guides or floor guide track is required.

The hardware is suitable for doors weighing up to 500 pounds each.

The plans at the bottom of this page show how the doors may be installed so as to all move one way, or how in a wider opening, the doors may be divided in the center, half moving to each side.

A Wicket Door may of course be built into any one of these larger doors if desired. For information concerning Wicket Doors, see page 35.

By referring to the cross sections and plans shown on this page, as you read the following, the mechanical details involved in the operation of the doors will be made clearer.

There are two tracks entirely across the opening. (See Fig. A-1493.) One track is

straight and the other parallel to it except near the side of the opening toward which the doors fold. At that place the track is made in the shape of a compound curve and the end of the track is separated from the straight track by approximately the width of one door.

Each door has two hangers, one of which runs in each of the tracks referred to above, except the door at the end of the opening where the doors stand when open. One hanger on this door runs in the short track, shown parallel with the side wall of the building, and the other hanger runs in the straight track.

### List Price of Parts

No. 442 Hangers, weight 10 lbs. each.....	\$8.00
No. 33 Straight Track, weight 4 lbs. per foot....	.58
No. 33 Curve, weight 4 lbs., per foot.....	2.70
No. 5 x 33 Bracket, weight 3 lbs., each.....	.58
No. 6 x 33 Bracket, weight 3 1/4 lbs., each.....	.58
No. 7 x 33 Bracket, weight 3 1/2 lbs., each.....	.58
No. 8 x 33 Bracket, weight 3 lbs., each.....	.58
No. 18 x 33 Bracket, weight 3 lbs., each.....	.58
No. 19 x 33 Bracket, weight 3 lbs., each.....	.58
No. 135 Flush Bolt, weight 1/2 lb. black finish, each.....	.80
The above hardware has the regular dead black finish.	
No. 135 Flush Bolt, weight 1/2 lb., polished brush brass, each.....	\$1.50

### Discount.....

We have not stated the amount of hardware required for openings of various dimensions, because each opening requires a special layout, which we will be glad to furnish upon request.

When writing for information give: width of opening, number of doors, thickness of doors, sketch showing which way the doors fold, and such other information as you think necessary.

The price of the hardware for the complete installation will then quickly be furnished you.



No. 442 Hanger

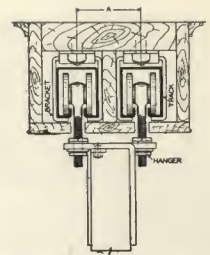


Fig. A-1491—Cross-Section view of Parallel Tracks. (See "A" in plan of Doors below).

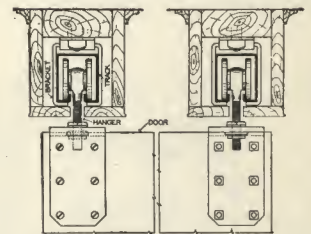


Fig. A-1492—Cross-Section view of Single Tracks. (See "B" in plan of Doors below).

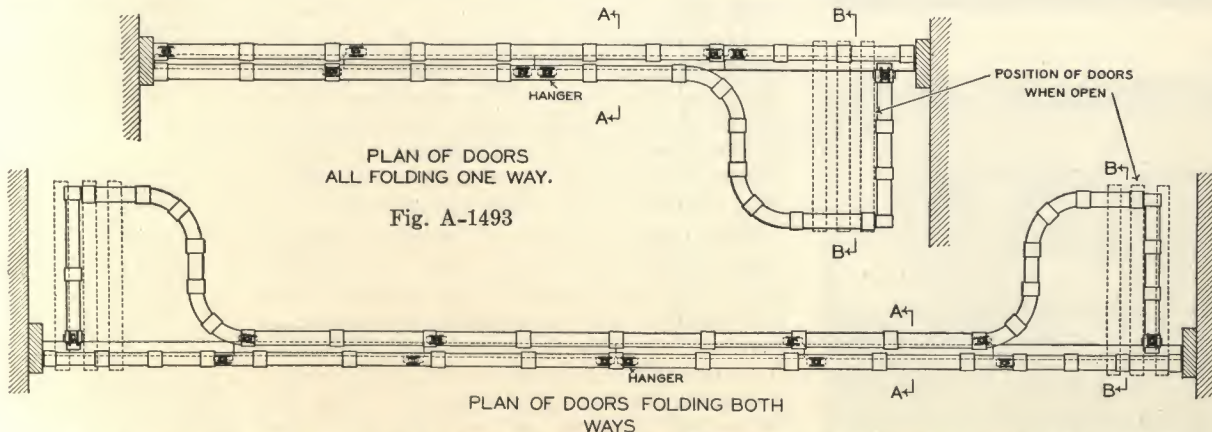


Fig. A-1494—See Figs. A-1491 and A-1492 for Cross-Sectional Views through Tracks at points "A" and "B"





## Parallel Sliding Partition Door Hardware

Suitable for Large or Small Doors

Weight of Doors Carried by Overhead  
Track and Hangers

PARALLEL Sliding Doors were early used for movable partitions. Today this method is still in vogue. The simplicity and ease of operation, together with the fact that the method allows for doors of various heights and weights being used, played no small part in their continued popularity.

Installations where the doors are as large as here shown are as satisfactory in every particular as are those where the doors are of only ordinary size.

The weight of Parallel Sliding Doors is carried by an overhead trolley track in which hangers, 2 for each door, operate.

Floor Guide or Floor Guide Track is not necessary when doors are of ordinary height. Where real large doors are used Floor Guide and Floor Guide Track act to steady the bottom of the doors, when they are being opened or closed, and for that reason are often specified. See pages 44 and 30.

The first illustration shows a balcony that can be subdivided into five individual rooms when desired. The space under the balcony is handled in the same manner. (See Fig. A-1495 on following page.)

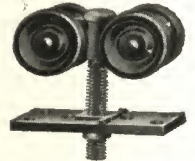
As a rule all of the doors disappear into a wall pocket (Figs. A-1496 and A-1497, Page 43) although the use of a stationary door, along-side of which the other doors stand when open, as illustrated at top of page, is very popular in Sunday School construction. (See Fig. A-1495 on page 43).

The hangers, as pictured, give you a good idea as to their appearance, also their relative size. The diameter of a wheel of a No. 126 Hanger measures  $1\frac{3}{4}$  inches, that of a No. 4 Hanger, 3 inches. More information concerning these hangers is given in the table on page 44.

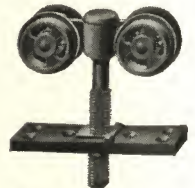
The large number of Parallel Sliding Door Partitions which are now being used and the importance of properly installing the doors and fixtures warrant a careful consideration of the essential features, of the details of construction and of the operation of the doors. This information is given on the following two pages.



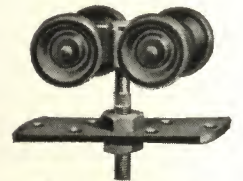
No. 126 Hanger



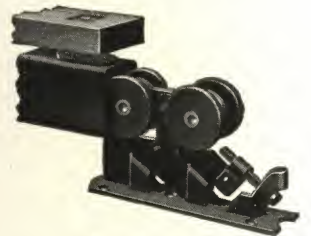
No. 226 Hanger



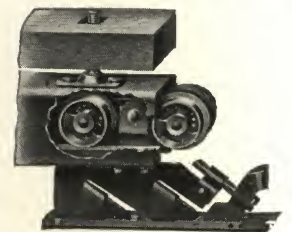
No. 626 Hanger



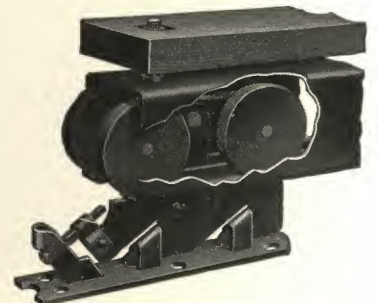
No. 140-1 Hanger  
No. 140-2 Hanger



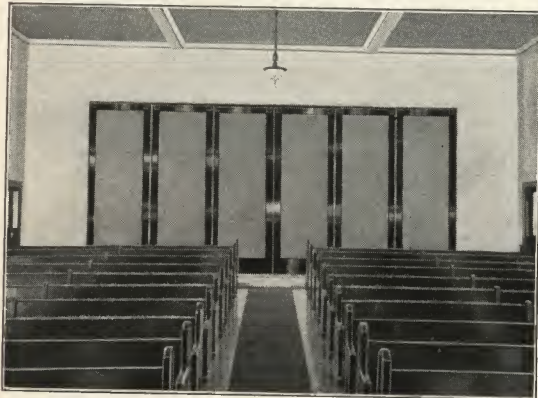
No. 16 Hanger



No. 221 Hanger



No. 4 Hanger





## Parallel Sliding Partition Door Hardware

(Continued)

In the parallel sliding partition door, as indicated by the name, the doors slide parallel to each other and a separate track is provided for each door. The number of doors to each partition is not limited by the method of operation, but a better appearance is gained by using not more than two or three doors sliding in the same direction.

The plan and elevation, Fig. A-1496, show a condition for which the parallel partition is well adapted. The two large doors form the partition between a small and a large room, and when not in use slide back into a pocket at the right. The pocket is built similar to that for an ordinary sliding parlor door, except that in all cases the sides should be covered with ceiling or other material to present a finished appearance, as in Figs. A-1496 and A-1497.

Door A laps the jamb at the pocket side and the two doors lap each other at the center of the opening. The track for door A extends only half-way across the opening, but door B requires a track entirely across the opening.

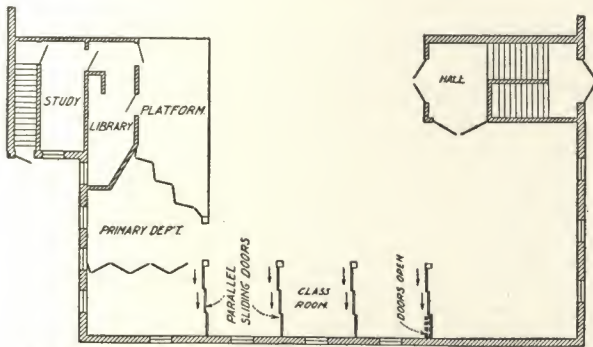


Fig. A-1495—Plan of Sunday School Portion of a Church

It is not necessary to slide all the doors one way, as they can frequently be arranged as in Fig. A-1497, where two doors slide to the right and two to the left. In this way an opening of considerable width can be obtained by the use of only two lines of track, and only two lap joints of the doors are visible. A pocket is here shown at each side of the opening; but this is not always necessary and, indeed, there are many cases, such as in Fig. A-1495, where it is better to omit the pockets and use instead a stationary panel or door. This stationary door is built exactly like the sliding doors, but instead of hanging it on a track it is attached permanently to the floor and soffit.

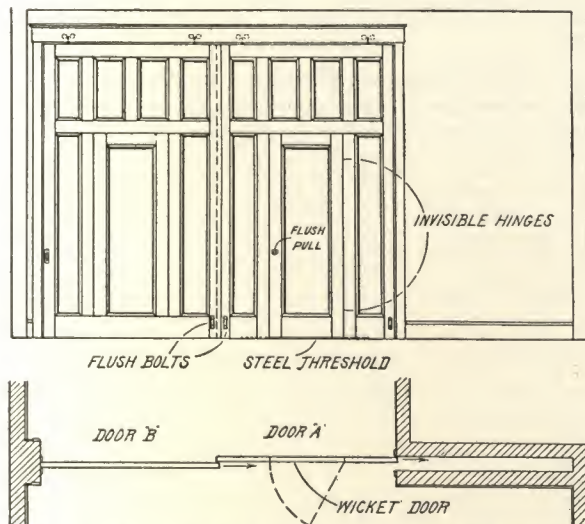


Fig. A-1496—Plan and Elevation of a Parallel Partition with Wicket Door

The sliding doors when opened occupy positions alongside the stationary door. This method results in a considerable saving of floor space and is particularly adapted for the smaller partitions such as are used between Sunday School class-rooms.

Partitions separating large rooms usually require a service or passage door between the rooms. If the doors are large, as in Fig. A-1496 the wicket door is the best solution. The doors should be built so that the wicket door will not destroy the harmony of design in all the doors. This is exemplified in Fig. A-1496. Hang the wicket with invisible hinges so that there will be no projections to interfere with sliding the large door. The lock should be fitted with flush pulls instead of knobs.

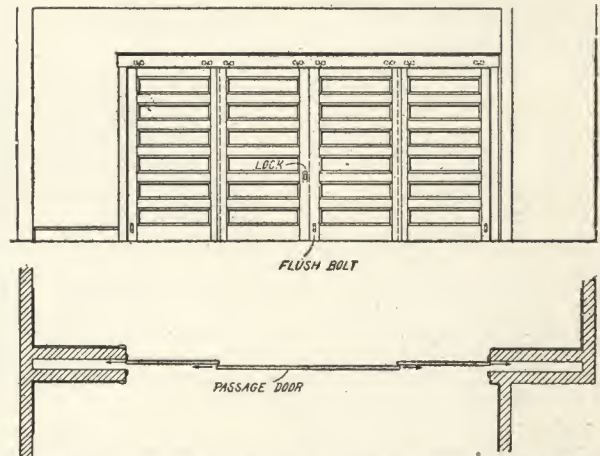


Fig. A-1497—One of the Sliding Doors used as a Passage Door

A steel bar  $\frac{3}{8}$  inch thick is used for a threshold. This is fitted into the bottom of the large sliding door A, and serves to tie the door together and helps to hold it in shape. A threshold strip with a double bevel or rounded upper surface is preferable. (See pages 27 and 35).

One of the sliding doors can be used as a passage door if it is not too large. A sliding door lock or latch is used to lock this door to the next one, which is held firmly in place by a flush floor bolt.

Details of the overlapping portions of the doors, together with a horizontal cross-section of the pockets, are given in Figs. A-1498 and A-1499.

The style of lap shown in Fig. A-1498 is very simple and serviceable. Wedge-shaped strips are attached to the sides of the door and are so arranged that when doors are withdrawn the distance intended these strips interlock, prevent the further movement of the doors and make a tightly closed joint. It is essential that these strips be

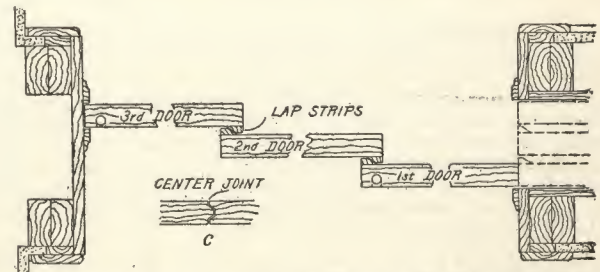


Fig. A-1498—Details of the Over-Lapping Portion of the Doors

made wide enough to permit a firm attachment to the doors, as they are particularly susceptible to damage from rough usage. At C is detailed a tongue-and-groove joint suitable for use with these doors where they come together at center of opening, as in Fig. A-1497.



## Sliding Parallel Partition Door Hardware

(Continued)

In Fig. A-1499, astragals are used on the edges of the doors. This method is often used with satisfaction, but has the disadvantage that no definite stop is provided. At D astragals for the center joint for doors as in Fig. A-1497 are shown. For doors all sliding one way, as in Fig. A-1496, the astragal on the outer edge of the last door enters between two door stops attached to the jamb, as detailed at E.

A typical vertical cross-section through the head jamb is shown in Fig. A-1500. The tracks are attached to the header, which is secured to the studding just high enough so that the bottom of the track brackets

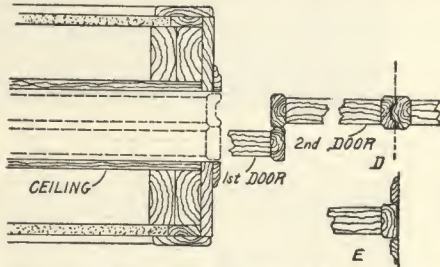


Fig. A-1499—Horizontal Cross-Section of Pocket

will be flush with the bottom of the trimmers. For doors 1 3/4 inches in thickness and not over 300 pounds in weight this distance will be about 3 3/4 inches. Hangers for heavier doors require more space. Care in lining up these parts while roughing in the partitions will save considerable time when applying the trim. It is sometimes convenient to hang the tracks directly to the lower chord of a truss or to the ceiling joists, but the exact method must always be decided by conditions met with in the particular building under construction.

The casing and head trim are applied in the usual manner, but the soffits frequently present some difficulty to the builder. To make a neatly finished job the bottom of the tracks should be entirely covered excepting narrow openings through which the pendant bolts of the door hangers move. The outside soffit pieces are, of course, easily applied.

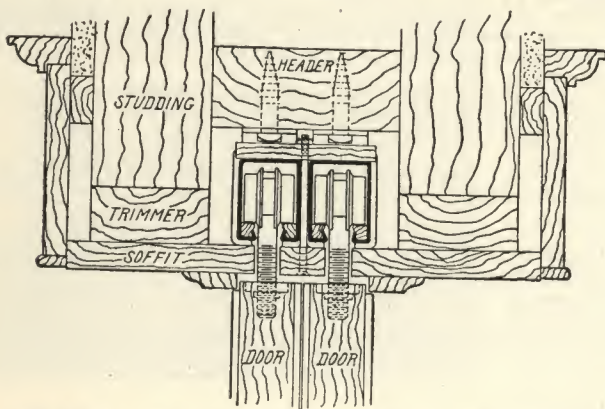


Fig. A-1500—Typical Cross-Section through Head Joint

The center strips are more difficult to apply, but a suitable scheme is shown in Fig. A-1500. The soffits are held in place by flat-headed stove bolts which pass up between the tracks and through blocks of wood which rest on top of the tracks. This does not necessitate setting the tracks farther apart, because the bolts can be placed at intervals between the points where brackets occur and they take up no more space than the thickness of the track brackets.

Another method is to have the bottom of the track brackets drilled and tapped for small machine screws. The soffits can then be screwed directly to the brackets, but care must be taken to use screws just long enough to go through the brackets without lifting the tracks out of place.

Tracks of the trolley or box-shaped type are generally used. These are made in a variety of sizes to suit doors of any weight. The track shown in Fig. A-1500 is wood-lined and practically noiseless, and is

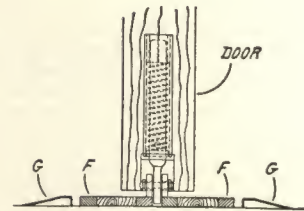


Fig. A-1501—Vertical Cross-Section showing No. 739 Floor Guide and Track illustrated on page 30.

therefore preferable for the lighter-weight doors. The hangers are ball-bearing or roller-bearing, and are vertically adjustable.

Floor guides may be used to steady the bottom of the doors. This is particularly desirable where the doors are large. These are designed to compensate for any irregularity or unevenness in the floor. A suitable article is shown on page 30.

The flat floor strips F-F and the beveled strips G-G (Fig. A-1502) are of steel, and form the guide slots in which the rollers operate. The space between the steel strips is filled in with 3/4 inch hardwood flooring, so that the top of the guides finish flat without any projections. If the floors are covered with 3/8 inch hardwood flooring the beveled strips may be omitted and flat guide strips used all around. The guides will then be flush with the floors of the rooms.

The rollers are invisible, being entirely inclosed in the door. They are kept in contact with the guide strips by spring pressure.

A sliding door lock is shown applied to door B in Fig. A-1496, securing it to the jamb. Flush bolts (see page 463) are used to secure the bottom of the doors to the floor. When floor guides are used only one bolt or lock is required for each door. This should be set in the stile of the door farthest from pocket so that it will not interfere with the guide strips in the floor. The end of these strips should be a couple of inches back from the edge of the door to allow space for the plate with which the flush bolt engages. A flush pull set into each door will add to the convenience of operation.

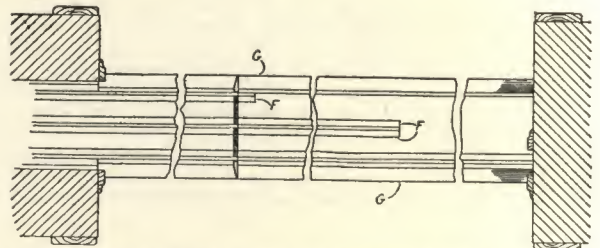


Fig. A-1502—Plan of Floor Guide for steadying the bottom of a Door

### List Price of Hangers and Track Recommended for Sliding Parallel Partition Doors

Weight of Doors, Lbs.	Hanger Nos.	Price Hangers, Per Pair	Track, No.	Price, Track, Per Ft.	Brackets			
					Center	Price, Each	End	Price, Each
150	116	\$2.50	31	\$0.25	7x31	\$0.21	8x31	\$0.21
150	221	2.25	*526	.70	7x31	.21	8x31	.21
150	126	3.50	30 1/2	.21	7x30 1/2	.21	8x30 1/2	.21
200	†140-1	3.50	31	.25	7x31	.21	8x31	.21
200	626	4.50	*526	.70	7x31	.21	8x31	.21
200	226	3.50	31	.25	7x31	.21	8x31	.21
300	†4	7.50	232	.45	7x232	.45	8x232	.45
400	†140-2	5.50	33	.58	7x33	.58	8x33	.58

\*Wood lined track. †Made with metal or fibre wheels. ‡Fibre wheels only.

All hangers are ball-bearing except Nos. 140-1 and 140-2 which are roller-bearing.

Hangers are illustrated on page 42. Track on page 193 and Brackets on page 194. Floor Guide and Floor Guide Track illustrated and priced on page 30.

Discount.....



# These Buildings Have

## "Ideal" Elevator Door Equipment

### Fine Hardware for Fine Buildings

#### Thousands of Installations

**T**HOUSANDS of the nations' finest buildings, throughout the length and breadth of the United States, are equipped with Ideal Elevator Door Hardware. In your own city there are perhaps, if you but knew where, many buildings so equipped.

#### Experts Near You

At each of our branch offices, see page one, there are men with engineering training who are fully qualified to explain to you the Ideal line. Their services are yours, gratis, for the asking.

#### Second to None

Ideal Elevator Door Equipment is the result of careful study and application of modern manufacturing methods. Our aim in building the Ideal line of Elevator Door Hardware, is to produce goods, which, from the standpoints of safety, reliability of operation, ease of operation and neatness of design, are unexcelled. These, with the use of high quality materials, combined with a thorough system of inspection, insure the maximum of efficiency for the purpose intended.

#### Standardized Equipment

The various types of Ideal Elevator Door Equipment illustrated and described in this

catalog, are R-W Standard Quality Products, representing the most advanced ideas in design and construction. We recommend that these products be specified by name and number to simplify and expedite the execution of orders.

#### Special Equipment

Experience has shown that special construction and special equipment are often required. Our equipment and facilities are such, that we are in a position to supply practically any construction or combination required.

#### For All Doors

Ideal Elevator Door Equipment is made for: single-speed; two-speed and three-speed doors; doors operating from both sides; and combination swing-out doors.

#### Unit Control

Ideal Hangers, Closers, Checking Devices and Safety Interlocks, are separate mechanisms, yet so constructed that they synchronize perfectly, forming a complete unit control.

#### Hanger and Track

The Ideal Hanger has vertical and lateral adjustment; evenly distributes weight of doors; and glides on two rows of heavy steel balls. The track is heavy gauge steel; extending the full width of the doorway,

positively dirt-proof. Doors, so equipped operate smoothly and noiselessly.

#### Closers and Checking Devices

The Ideal Closing and Checking Devices are separate mechanisms and can be regulated independently of each other, as conditions demand; designed so they require no pockets. The closer is on top of the bar, allowing easy and rapid operation. Quietness is assured by an adjustable liquid check.

#### Interlocks

The Ideal Electric Inter-lock operates from the controller bar and has one master switch in each shaft, thus eliminating complicated electric controls at each door opening. Either Ideal Electric or Mechanical Inter-locks can be added to Ideal Controllers at any time without changing controller mechanism.

#### A Last Word

An examination of the R-W Line of Ideal Elevator Door Equipment will convince you of its sterling worth and of its exceptional qualities.

The engineering services which we render when required cannot be surpassed.

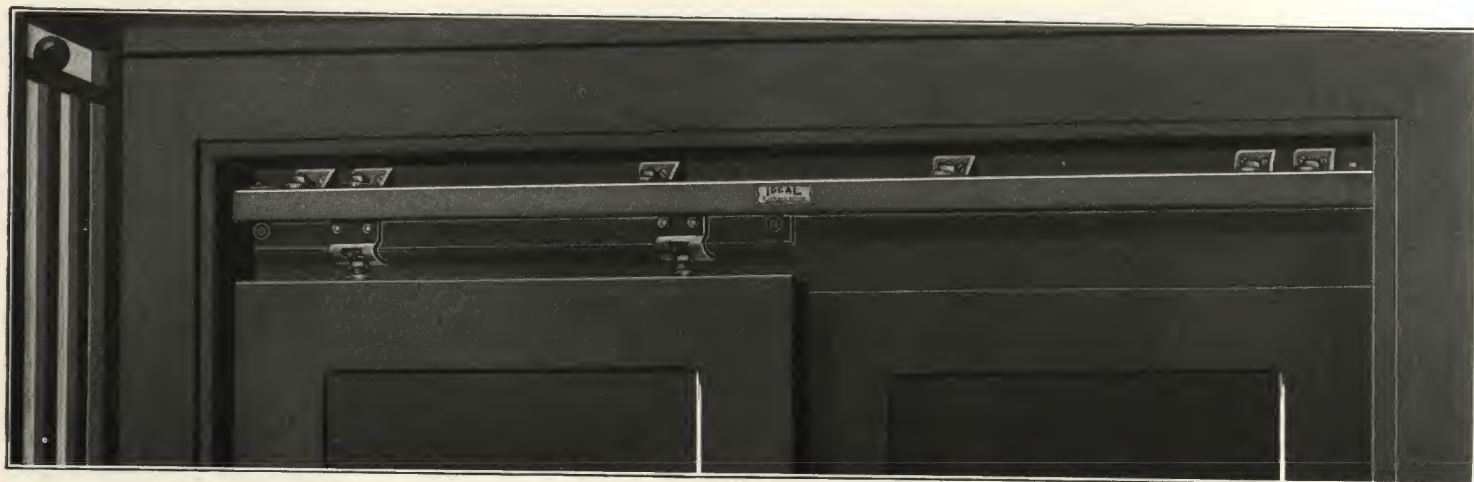
The Ideal Line is an Ideal Line to tie to!



## No. 727 "Ideal" Elevator Door Hangers

For Single  
Doors

For Doors Weighing Up to 200 Pounds Each



No. 727 "Ideal" Elevator Door Hangers are used for single sliding doors or for combination swing and slide doors when track is attached to swinging transom arm.

**"Ideal" Hangers** — Length of hanger is equal to the width of door, providing a long bearing, evenly distributing weight of door over a long section of track, insuring to a certainty smooth, steady motion, and easy running. The weight of the door is carried on two rows of  $\frac{1}{2}$ -inch high duty steel balls, kept an equal distance apart by a retainer. Limit rollers provided to prevent doors

from jumping or raising. Furnished with plate or apron attachment to doors as shown.

**"Ideal" Track**—Track is a rectangular shaped tube made of very heavy gauge steel, drawn to form two parallel runways for steel balls upon which hanger rolls. Length of track is equal to the full run of doors. Is dust and dirt-proof. Track has lateral adjustment, hanger has vertical and lateral adjustment.

Finish, flat black. Packed with screws for attaching.

### In Ordering State

- First**—Width of sliding door.
- Second**—Width of door opening.
- Third**—Thickness of door.
- Fourth**—Lap of door over front jamb.
- Fifth**—Lap of door over back jamb or stationary door.
- Sixth**—Whether attached to metal or wood.
- Seventh**—Whether doors are wood, kalamain, hollow metal, grill or angle iron.
- Eighth**—Specify if doors are right or left hand (cut shows right hand.)
- Ninth**—Send sketch or blue print showing doors, doorway and width of elevator shaft if possible.

### List Price

R-W No. 727 "Ideal" Elevator Door Hangers. For single doors weighing up to 200 lbs. each. For doors over 200 lbs., prices on application. Approximate shipping weight for door 38" wide is 36 lbs.

For doors up to 32 inches wide, per set.....	\$14.00
For doors 32 to 38 inches wide, per set.....	15.50
For doors 38 to 44 inches wide, per set.....	17.50
For doors 44 to 50 inches wide, per set.....	19.00
For doors 50 to 56 inches wide, per set.....	21.50
For doors 56 to 62 inches wide, per set.....	25.00

Above prices do not include controllers.

Discount.....



## No. 728 "Ideal" Elevator Door Hangers

Patented

For Doors Weighing Up to 150 Pounds Each

For Two-Speed  
Doors



No. 728 "Ideal" Elevator Door Hangers are made regularly with rack and pinion attachment for operating two doors in the same direction, one door moving at twice the speed of the other; also made without rack and pinion, when two speed controllers are used. Furnished with a wall plate to which the complete fixture is attached.

**"Ideal" Hangers** — Length of each hanger is equal to the width of the door, providing a long bearing, evenly distributing weight of door over a long section of track, insuring to a certainty smooth, steady motion, and easy running. The weight of the door is carried on two rows of  $\frac{1}{2}$ -inch high duty steel balls, kept

an equal distance apart by a retainer Limit rollers provided to prevent doors from jumping or raising. Furnished with plate attachment to doors as shown.

**"Ideal Track"**—Track is a rectangular shaped tube made of very heavy gauge steel, drawn to form two parallel runways for steel balls upon which hanger rolls. The length of track is equal to the full run of doors. Is dust and dirt-proof. Hanger has vertical and lateral adjustment. Finish, flat black. Packed with screws for attaching.

### In Ordering State

**First**—Width of each sliding door.

**Second**—Lap of the sliding door over stationary door or back jamb.

**Third**—Lap of the sliding door over front jamb, if any.

**Fourth**—Width of door opening.

**Fifth**—Thickness of doors.

**Sixth**—Whether attached to metal or wood.

**Seventh**—Right hand (as in cut) or left hand.

**Eighth**—Whether doors are wood, kalamein, hollow metal, grill or angle iron.

**Ninth**—Send sketch or blue print showing doors, doorway and width of elevator shaft if possible.

### List Price

R-W No. 728 "Ideal" Elevator Door Hangers. For two-speed doors, weighing up to 150 lbs. each. For doors over 150 lbs., prices on application. Approximate shipping weight for door 24" wide is 55 lbs.

For doors up to 20 inches each in width, per set.....	\$46.00
For doors 20 to 26 inches each in width, per set.....	49.50
For doors 26 to 32 inches each in width, per set.....	53.00
For doors 32 to 38 inches each in width, per set.....	56.50
For doors 38 to 44 inches each in width, per set.....	60.00

Without rack and pinion deduct \$13.00 from the above lists. Above prices do not include controllers.

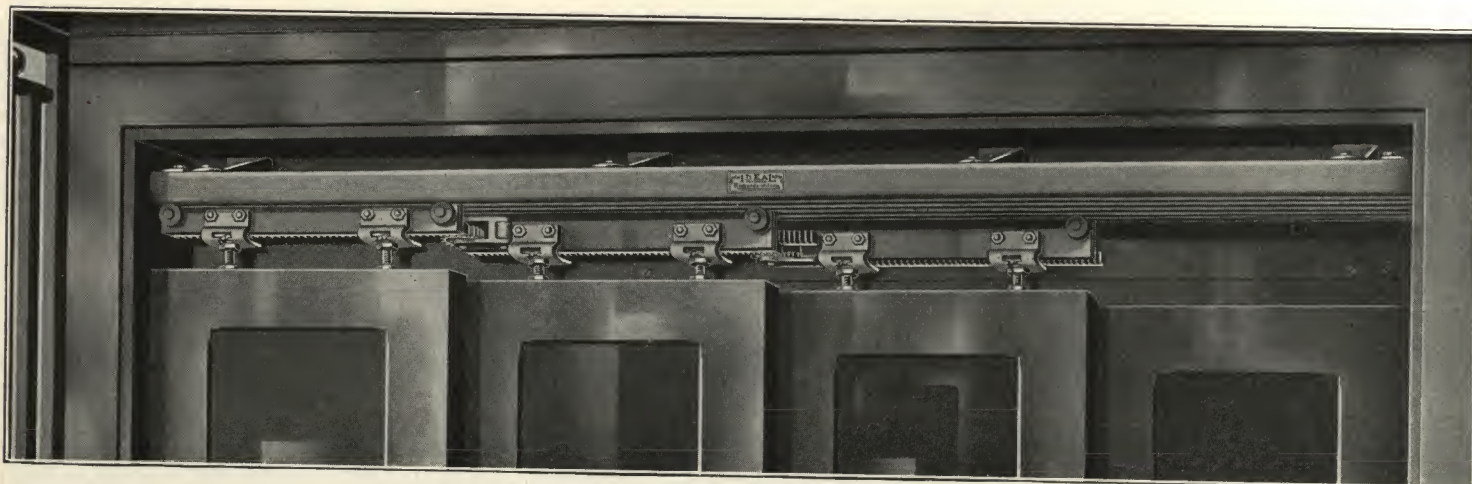
Discount.....



## No. 729 "Ideal" Elevator Door Hangers

For Doors Weighing Up to 150 Pounds Each

For  
Three-Speed Doors



No. 729 R-W "Ideal" Elevator Door Hangers are made with rack and pinion attachment for operating three doors in the same direction, the fast door at three times the speed, the intermediate door twice the speed of the slow door. Furnished with a wall plate to which the complete fixture is attached.

**"Ideal" Hangers** — Length of each hanger is equal to the width of the door, providing a long bearing, evenly distributing weight of door over a long section of track, insuring to a certainty smooth, steady motion, and easy running. The weight of the door is carried on two rows of  $\frac{1}{2}$ -inch high duty steel balls, kept an equal

distance apart by a retainer. Limit rollers provided to prevent doors from jumping or raising. Furnished with plate attachment to doors as shown.

**"Ideal" Track** — Track is a rectangular shaped tube made of very heavy gauge steel, drawn to form two parallel runways for steel balls, upon which the hanger rolls. The length of track is equal to the full run of doors. Is dust and dirt-proof. Hanger has vertical and lateral adjustment. Finish, flat black. Packed with screws for attaching.

### In Ordering State

**First**—Width of each sliding door.

**Second**—Lap of the sliding door over stationary door or back jamb.

**Third**—Lap of sliding door over front jamb, if any.

**Fourth**—Distance sliding doors lap each other.

**Fifth**—Width of door opening.

**Sixth**—Thickness of doors.

**Seventh**—Whether attached to metal or wood

**Eighth**—Right hand (as in cut) or left hand.

**Ninth**—Whether doors are wood, kalamein, hollow metal, grill or angle iron.

**Tenth**—Send sketch or blue print showing doors, doorway and width of elevator shaft if possible.

### List Price

R-W No. 729 "Ideal" Elevator Door Hangers. For three-speed doors, weighing up to 150 lbs. each. For doors over 150 lbs. prices on application. Approximate shipping weight for door 20" wide is 66 lbs.

For doors up to 14 inches each in width, per set.....	\$59.00
For doors 14 to 20 inches each in width, per set.....	62.00
For doors 20 to 26 inches each in width, per set.....	65.00
For doors 26 to 32 inches each in width, per set.....	68.00

Above prices do not include controllers.

Discount.....



## No. 730 "Ideal" Elevator Door Hangers

For  
Doors in Pairs

For Doors Weighing Up to 200 Pounds Each



No. 730 R-W "Ideal" Elevator Door Hangers are made with rack and pinion attachment for simultaneously operating both doors in opposite directions. Can be furnished with chain and sprocket operating device if desired, at same price. Furnished with wall plate to which complete fixture is attached.

**"Ideal" Hangers** — Length of each hanger is equal to the width of the door, providing a long bearing, evenly distributing weight of door over long section of track, insuring to a certainty smooth, steady motion and easy running. The weight of the door is carried on two rows of

$\frac{1}{2}$ -inch high duty steel balls, kept an equal distance apart by a retainer. Limit rollers provided to prevent doors from jumping or raising. Furnished with plate or apron attachment to doors as shown.

**"Ideal" Track** — Track is a rectangular shaped tube made of very heavy gauge steel, drawn to form two parallel runways for steel balls upon which hanger rolls. The length of track is equal to the full run of doors. Is dust and dirt-proof. Hanger has vertical and lateral adjustment. Finish, flat black. Packed with screws for attaching.

### In Ordering State

- First** — Width of each sliding door.
- Second** — Width of door opening.
- Third** — Thickness of doors.
- Fourth** — Whether attached to metal or wood.
- Fifth** — Whether doors are wood, kalamein, hollow metal, grill or angle iron.
- Sixth** — When No. 625 Bar Locks or No. 743 Controllers are furnished specify to which door same are to be attached (to right or left hand door).
- Seventh** — Send sketch or blue print showing doors, doorway and width of elevator shaft if possible.

### List Price

R-W No. 730 "Ideal" Elevator Door Hangers. For doors in pairs weighing up to 200 lbs. each. For doors over 200 lbs., prices on application. Approximate shipping weight for door 26" wide is 56 lbs.

For doors up to 20 inches each in width, per set.....	\$32.00
For doors 20 to 26 inches each in width, per set.....	35.00
For doors 26 to 32 inches each in width, per set.....	38.00
For doors 32 to 38 inches each in width, per set.....	41.50

Without rack and pinion, deduct \$10.50 from the above lists. Above prices do not include controllers.

Discount.....



## No. 732 "Ideal"

Patented

## Elevator Door Hangers

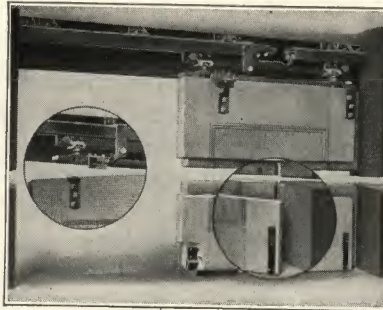
For Doors Weighing Up to 200 Pounds Each

For Combination  
Swinging Doors.



No. 732 R-W "Ideal" Elevator Door Hangers are used when stationary door is hinged, and it is desirable, at times, to swing both doors open so as to use the full width of elevator opening, yet not practical to swing the transom bar to which track is attached. It is usually more satisfactory to arrange to swing the transom bar if possible. The top of the sliding door is pivoted to the hanger bar and the bottom of the door is guided by a shoe attached to the hinged door. A better installation will result if an ordinary flush bolt with round pin is located in the back edge of the bottom of the door, as shown in the circle. The bolt is lowered into a hole in the iron saddle to serve as a bottom pivot when the door is swung out into the corridor. Care must be taken to locate the center of the flush bolt exactly below and in line with the pivot in the top fixture. When the front end of the door is disconnected from the hanger bar to swing doors open, the latch is hooked over the hold back bracket which prevents the hanger from sliding forward, as shown in small illustration in left hand circle. This forms a positively located top pivot, and when used with the flush bolt prevents the front end of slide door from dropping on the guide shoe while both doors are being swung out of opening. The large illustration shows the door latched to hanger bar for operating the sliding door.

**"Ideal" Hangers**—Length of hanger is equal to the width of door, providing a long bearing, evenly distributing weight of door over a long section of track, insuring to a certainty smooth, steady



motion, and easy running. The weight of the door is carried on two rows of  $\frac{1}{2}$ -inch high duty steel balls, kept an equal distance apart by a retainer. Limit rollers provided to prevent doors from jumping or raising. Furnished with plate or apron attachment to doors as shown.

**"Ideal" Track**—Track is a rectangular shaped tube made of very heavy gauge steel, drawn to form two parallel runways for steel balls upon which hanger rolls. The length of track is equal to the full run of doors. Is dust and dirt-proof. Track has lateral adjustment, hanger has vertical and lateral adjustment. A guide for the front end of door is regularly furnished, but the flush bolt is not included in a set of fixtures. Finish, flat black. Packed with screws for attaching.

### In Ordering State

- First**—Width of sliding door.
- Second**—Width of sliding door opening.
- Third**—Distance between jambs.
- Fourth**—Exact thickness of sliding door.
- Fifth**—Whether attached to metal or wood.
- Sixth**—Whether doors are wood, kalamein, hollow metal, grill or angle iron.
- Seventh**—Right hand (as in cut) or left hand.
- Eighth**—Send sketch or blue print showing doors, doorway and width of elevator shaft if possible.

### List Price

R-W No. 732 "Ideal" Elevator Door Hangers. For combination swing and slide doors weighing up to 200 lbs. For doors over 200 lbs. prices on application. Approximate shipping weight for door 38" wide is 42 lbs.

For doors up to 38 inches wide, per set.....	\$17.00
For doors up to 38 inches to 44 inches wide, per set.....	18.75
For doors 44 inches to 50 inches wide, per set.....	20.50
For doors 50 inches to 60 inches wide, per set.....	22.50

Above prices do not include hinges for panel or flush bolts. Above prices do not include controllers.

Discount.....

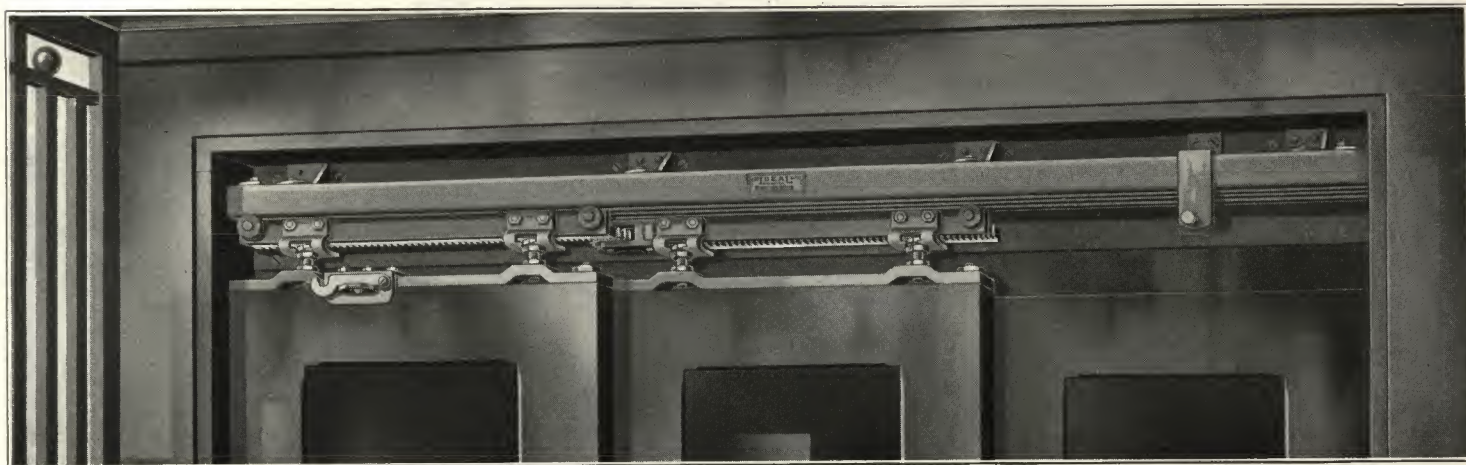


## No. 733 "Ideal" Elevator Door Hangers

Patented

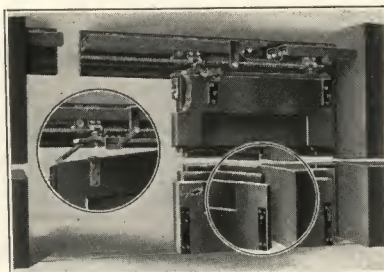
For Doors Weighing Up to 150 Pounds Each

For Two-Speed Combination  
Swing and Slide Doors



No. 733 "Ideal" Elevator Door Hangers are used for two-speed doors when it is desirable to swing both sliding doors and stationary door open so as to use the full width of elevator opening. The top of each door is pivoted to the hanger bar and ordinary flush bolts with round pins, which are lowered into holes in the iron saddle, serve as bottom pivots. Care must be taken to locate the center of the flush bolts exactly below and in line with the pivots in the top fixture. When the front end of each door is disconnected from the hanger bar to swing doors open, the latch is hooked over the hold back bracket, as shown in the small left hand circle, which prevents the hangers from sliding forward. This forms positively located top pivots and prevents the front end of the doors from dragging on the floor while both doors are being swung out of the opening. The large illustration shows the doors latched to the hanger bars for operating the sliding doors. Complete fixture is attached to a wall plate.

"Ideal" Hangers—Length of each hanger is equal to the width of the door, providing a long bearing, evenly distributing weight of door over a long section of track, insuring to a certainty smooth, steady motion, and easy running. The weight of the door is carried on two rows of  $\frac{1}{2}$ -inch high duty steel balls, kept an equal distance apart by a retainer. Furnished with apron attachment for wood or kalamein



doors or plate attachment for metal doors. Limit rollers provided to prevent doors from jumping or raising.

"Ideal" Track—Track is a rectangular shaped tube made of heavy gauge steel, drawn to form two parallel runways for steel balls upon which hanger rolls. Length of track is equal to the full run of doors. It is dust and dirt-proof. Hanger has vertical and lateral adjustment. Flush bolts are not included in a set of fixtures. Finish, flat black. Packed with screws for attaching.

### In Ordering State

- First**—Width of each sliding door.
- Second**—Lap of the sliding door over hinged door.
- Third**—Lap of sliding door over jamb, if any.
- Fourth**—Width of sliding door opening.
- Fifth**—Distance between jambs.
- Sixth**—Thickness of doors.
- Seventh**—Whether attached to metal or wood.
- Eighth**—Right hand (as in cut) or left hand.
- Ninth**—Whether doors are wood, kalamein, hollow metal, grill or angle iron.
- Tenth**—Send sketch or blue print showing doors, doorway and width of elevator shaft if possible.

### List Price

R-W No. 733 "Ideal" Elevator Door Hangers. For two-speed doors, weighing up to 150 lbs. each. For doors over 150 lbs. prices on application. Approximate shipping weight for door 26" wide is 71 lbs.

For doors up to 20 inches each in width, per set.....	\$52.50
For doors 20 inches to 26 inches each in width, per set.....	56.00

For doors 26 to 32 inches each in width, per set.....	59.00
For doors 32 to 38 inches each in width, per set.....	62.75
For doors 38 to 44 inches each in width, per set.....	66.50

Without rack and pinion deduct \$13.00 from the above lists. Above prices do not include controllers.

Discount.....

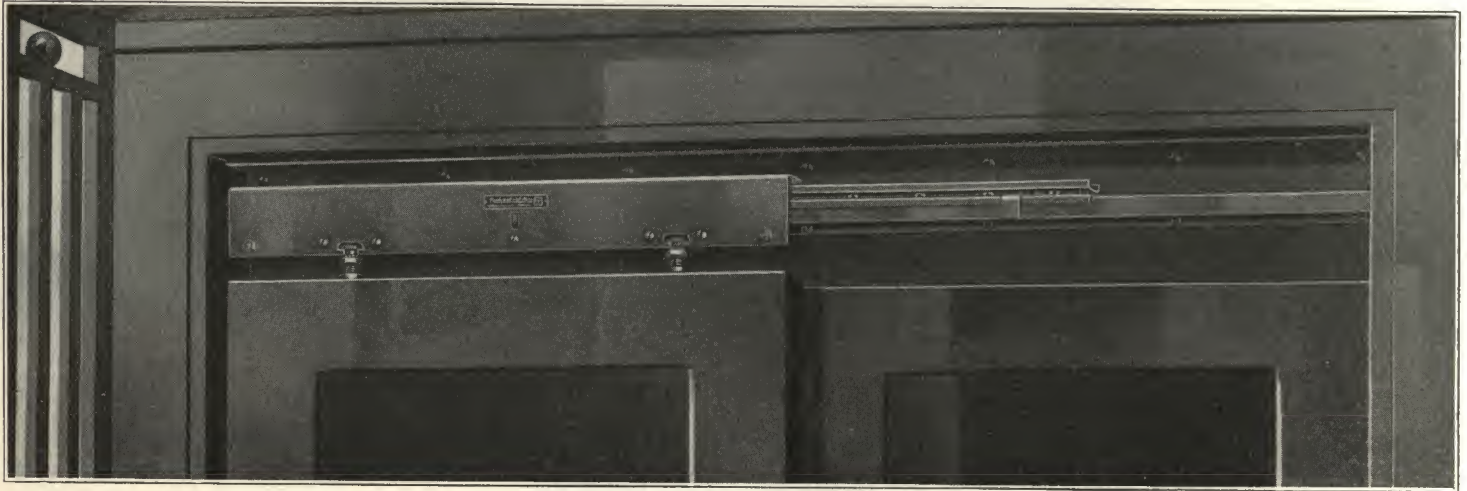


**Richards-Wilcox**

***RICH-WIL***

## **Elevator Door Hangers**

**R-W Nos. 827-828-830-832 and 833**



The Rich-Wil elevator door equipment is made for single and two-speed doors, doors in pairs, combination single swing and slide doors and two-speed combination swing and slide doors.

The hangers are attractive in appearance, and are well protected from dust and dirt. One of the important installation features is that it requires less headroom than any other hanger on the market. The projecting ledge of the angle above the top of the track serves to protect the hangers from falling dirt and also makes a very convenient place for attaching a cover, if a cover is required. The angle also makes a much stiffer construction than a flat plate.

The limit roller is adjustable. It is mounted on an eccentric shaft or axle. If the nut on the limit roller is loosened, the axle can be turned a short distance by means of the screw driver slot which will either draw the roller closer to the track or farther away from it. When the proper adjustment is made, the axle will be locked in position by the nut.

In the two-speed equipment, the slow door rider bar is connected to the ball retainer of the fast door. The ball retainer always moves just half as fast as the door, consequently the slow door will move just half as fast as the fast door. No gears are used.

The No. 830 Bi-parting type is equipped with a block chain. Experiments proved this method was in every way to be preferred. It operates much more quietly than the geared device. It is very easily adjusted. Each of the sprockets is mounted on a plate which can be adjusted to give the chain the proper tension, and to properly center the doors. The chain being flexible will not for any reason cause binding of the operating mechanism.



# Richards-Wilcox

## RICH-WIL.

### Elevator Door Hangers

R-W Nos. 827-828-830-832 and 833

(Continued)

#### In Ordering State:

- Width of sliding door or doors.
- Width of door opening.
- Thickness of doors.
- Lap of sliding door over front jamb, if any.
- Lap of sliding door over back jamb or stationary door.
- Whether attached to wood or metal.
- Whether doors are wood, kalamein, hollow metal, grill or angle iron.
- Are doors right or left hand? (cut shows right hand).
- Send sketch or blueprint showing doors, doorway and width of elevator shaft if possible.
- When ordering No. 830 fixtures, if 625 bar locks or 743 controllers are furnished specify to which door same are to be attached: (To Right or Left hand door).
- When ordering No. 832 fixtures, also specify distance between jambs.
- When ordering No. 833 fixtures, also specify lap of sliding door over hinged door, and distance between jambs.

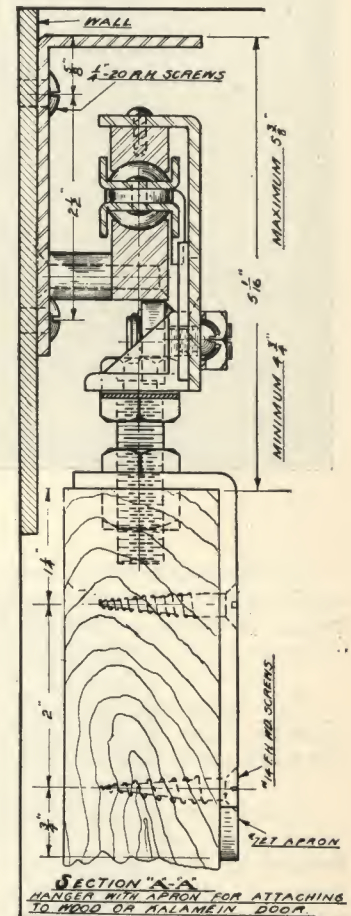


Fig. A-1503

#### List Prices "Rich-Wil" Elevator Door Equipment

Catalog Number and Weight of Doors	For Doors up to 20 in. wide	For Doors 20-26 in. wide	For Doors 26-32 in. wide	For Doors 32-38 in. wide	For Doors 38-44 in. wide	For Doors 44-50 in. wide	For Doors 50-56 in. wide	For Doors 56-62 in. wide
No. 827 for single doors weighing up to 200 lbs. Each.....	\$14.00	\$14.00	\$14.00	\$15.50	\$17.50	\$19.00	\$21.50	\$25.00
†No. 828 two-speed doors, weighing up to 150 lbs. Each.....	46.00	49.50	53.00	56.50	60.00	.....	.....	.....
*No. 830 for doors in pairs, weighing up to 200 lbs. Each.....	32.00	35.00	38.00	41.50	.....	.....	.....	.....
No. 832 for combination swinging doors up to 200 lbs. Each.....	17.00	17.00	17.00	17.00	18.75	20.50	22.50	22.50
†No. 833 for two-speed combination swing and slide doors, weighing up to 150 lbs. Each.....	52.50	56.00	59.00	62.75	66.50	.....	.....	.....

Above prices do not include controllers. Prices on application for doors heavier than specified in table

†Without two-speed device deduct \$14.00 from list prices.

\*Without bi-parting device, deduct \$10.50 from list prices.

**Rich-Wil—A New and Worthy Member of the R-W Family!**





## *"Ideal"* Elevator Door Controllers

Nos.  
743-A, B, C, D and E

Patented



Correct engineering designing, high quality material and workmanship together with rigid individual inspection, result in elevator door controllers that are second to none in mechanical perfection, ease and quietness of operation.

The following pages illustrate and describe in detail various types of controllers, each one especially designed for some particular service.

Of late the automatic closing of elevator doors is being demanded more and more, as a safeguard against accidents caused by careless operators failing to properly close the doors. "Ideal" Controllers perform this work positively and easily, besides eliminating the objectionable noise and slamming of the doors.

**Type A** is recommended for combination swing and slide doors, two-speed doors with racks and pinion, and three-speed doors.

**Type B** is furnished for single sliding doors or doors in pairs, if preferred.

**Type C** can only be used with two-speed doors without racks and pinion.

**Type D** is made especially for use on single doors for automatic elevators. The handle is omitted and the door arms are made so they do not fall to a horizontal position, in that way making it possible to open the doors from the corridor side. Type D Controller is not a lock.

**Type E** is made especially for use on two-speed doors for automatic elevators. The door arms are made so that they do not fall to a horizontal position, in that way making it possible to open the doors from the corridor side. Type E Controller is not a lock.

Nos. 743-2, A, B, C, D and E Controllers are of the same construction as the Nos. 743-1, A, B, C, D, and E except made with stronger closing power for heavier doors.

The handle of each controller, because of its long leverage, starts the doors easily. The spring cannot be overwound; is extra long, insuring long life; acts positively to close the doors regardless of the position of the arms. Doors cannot be opened from the corridor side, except with a hook furnished for that purpose, if desired.

"Ideal" Elevator Door Controllers can be used in connection with any standard make of hanger; single, two-speed three-speed doors, doors in pairs or combination swing-out doors. When used with combination swing-out doors (see illustrations on pages 50 and 51) the arms may be detached from the sleeve at the Door Plate Stud.

The spring and checking mechanisms are separate, and can readily be regulated independently of each other to suit the varying conditions of the doors.

The maximum projection of the types A, B or D Controllers from face of the door is  $1\frac{1}{2}$  inches, of type C and E  $1\frac{3}{8}$  inches.

"Ideal" Controllers are made right or left hand; illustrations show right hand.

Finish: Regular, dead black; polished brass handle. Other finishes can be furnished on application.

Hook to unlock doors from corridor side furnished if desired.

Device to hold doors open furnished if desired.

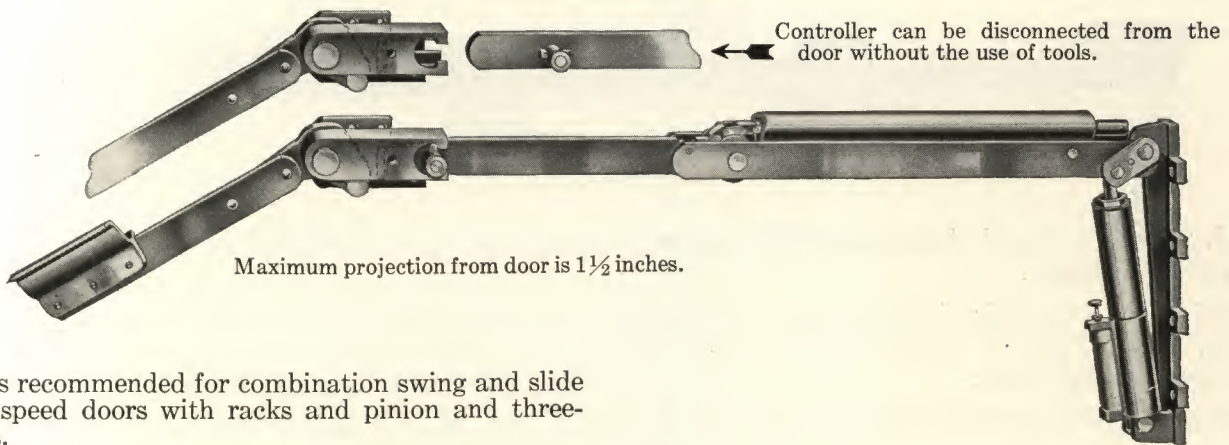
See following pages for further information, illustrations and List Prices.



R-W No. 743-A

Patented

## "Ideal" Elevator Door Controller



Type A is recommended for combination swing and slide doors, two-speed doors with racks and pinion and three-speed doors.

No. 743-2, Type A Controller is of the same construction as the No. 743-1, Type A, except made with a stronger closing power for heavier doors.

Average weight of No. 743-A Controller is 18 pounds.

The spring and checking mechanisms are separate, and can readily be regulated independently of each other to suit the varying conditions of the doors.

Finish, regular, dead black, polished brass handle; other finishes can be furnished on application.

Packed with screws. Device to hold doors open furnished if desired. Device to unlock from corridor side furnished if desired.

### In Ordering State

**First**—Distance from where jamb bracket is attached to back edge of door to which controller handle is attached.

**Second**—Width of stile of door to which controller handle is attached.

**Third**—Distance from door to edge of elevator shaft.

**Fourth**—Distance from edge of elevator shaft to car platform.

**Fifth**—Whether doors are made of wood, kalamein, hollow metal, grill or angle iron.

**Sixth**—Whether jamb bracket is to attach to wood, metal or masonry.

**Seventh**—Width of each door.

**Eighth**—Whether to be used with single, two-speed or three-speed doors; doors in pairs or combination swing-out doors.

**Ninth**—Whether right hand (as in cut) or left hand.

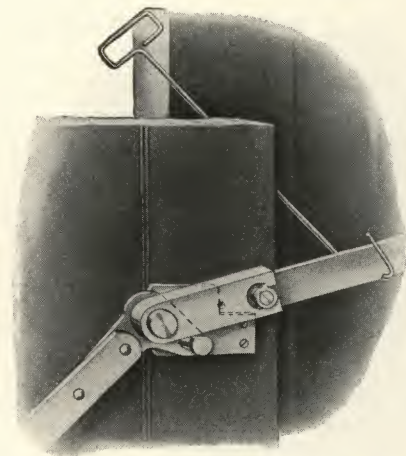


Illustration shows how controller is unlocked from corridor side.

### List Price

No. 743-1—Type A "Ideal" Elevator Door Controller, regular dead black finish, each.....	\$31.50
No. 743-1—Type A "Ideal" Elevator Door Controller, polished brass, each.....	40.00
No. 743-2—Type A "Ideal" Elevator Door Controller, regular dead black finish, each.....	34.50
No. 743-2—Type A "Ideal" Elevator Door Controller, polished brass, each.....	42.00
No. 743 —Hold Open Device, Car Part (one required for each car), weight, each 3 3/4 lbs., each.....	7.50
No. 743 —Hold Open Device, Door Part, (one required for each opening), weight, each 1/2 lb., each.....	1.75

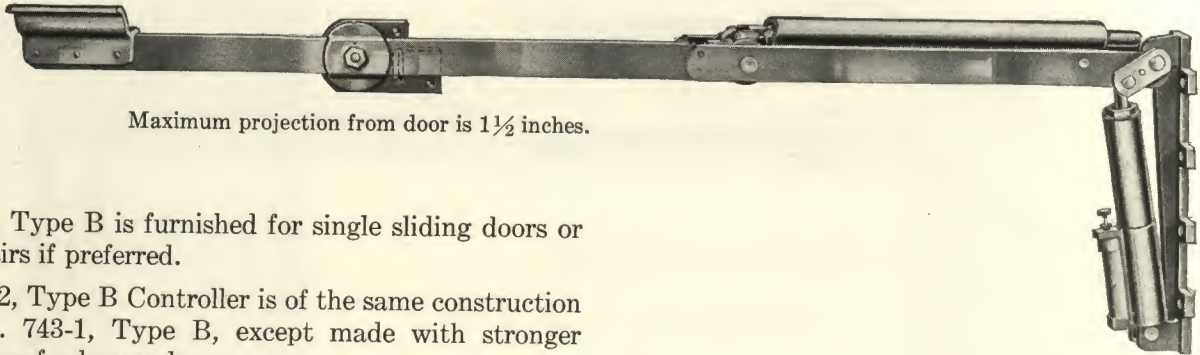
Discount.....



R-W No. 743-B

Patented

## "Ideal" Elevator Door Controller



Maximum projection from door is 1½ inches.

No. 743, Type B is furnished for single sliding doors or doors in pairs if preferred.

No. 743-2, Type B Controller is of the same construction as the No. 743-1, Type B, except made with stronger closing power for heavy doors.

Average weight of No. 743-B Controller is 18 pounds.

The spring and checking mechanisms are separate and can readily be regulated independently of each other to suit the varying conditions of the doors.

Finish, regular, dead black, polished brass handle; other finishes can be furnished on application.

Packed with screws. Device to hold doors open furnished if desired. Device to unlock from corridor side furnished if desired.

### In Ordering State

**First**—Distance from where jamb bracket is attached to back edge of door to which controller handle is attached.

**Second**—Width of stile of door to which controller handle is attached.

**Third**—Distance from door to edge of elevator shaft.

**Fourth**—Distance from edge of elevator shaft to car platform.

**Fifth**—Whether doors are made of wood, kalamein, hollow metal, grill or angle iron.

**Sixth**—Whether jamb bracket is to attach to wood, metal or masonry.

**Seventh**—Width of each door.

**Eighth**—Whether to be used with single, two-speed or three-speed doors; doors in pairs or combination swing-out doors.

**Ninth**—Whether right hand (as in cut) or left hand.

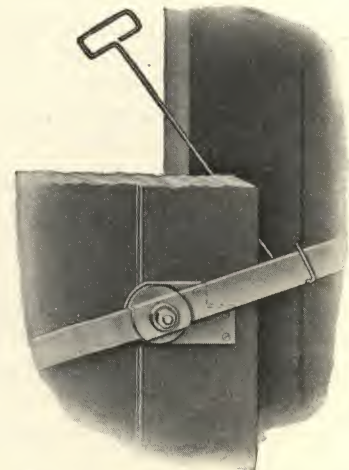


Illustration shows how controller is unlocked from corridor side.

### List Price

No. 743-1—Type B "Ideal" Elevator Door Controller, regular dead black finish, each	\$31.50
No. 743-1—Type B "Ideal" Elevator Door Controller, polished brass, each	40.00
No. 743-2—Type B "Ideal" Elevator Door Controller, regular dead black finish, each	34.50
No. 743-2—Type B "Ideal" Elevator Door Controller, polished brass, each	42.00
No. 743 —Hold Open Device, Car Part (one required for each car), weight, each 3¼ lbs., each	7.50
No. 743 —Hold Open Device, Door Part (one required for each opening), weight, each ½ lb., each	1.75

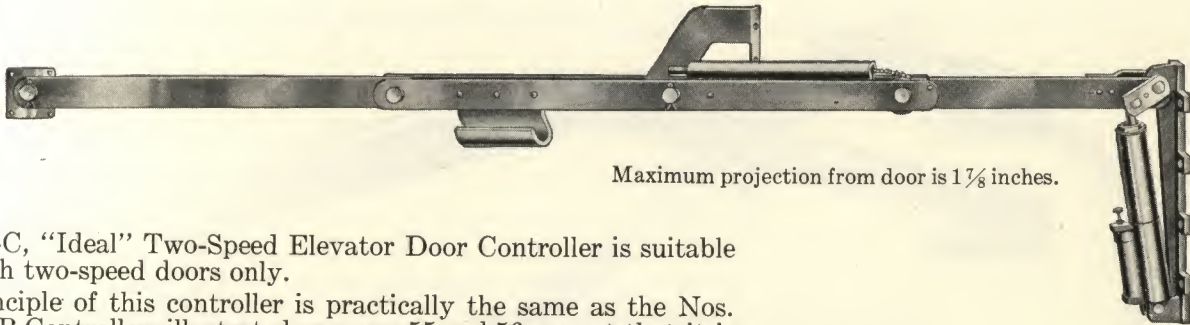
Discount.....



R-W No. 743-C

Patented

## "Ideal" Elevator Door Controller



Maximum projection from door is  $1\frac{7}{8}$  inches.

No. 743-C, "Ideal" Two-Speed Elevator Door Controller is suitable for use with two-speed doors only.

The principle of this controller is practically the same as the Nos. 743-A and B Controllers illustrated on pages 55 and 56, except that it is attached to both sliding doors thereby controlling the speed of the doors, while the Nos. 743-A and B Controllers merely close and check the door, and the relative speed of the two doors is taken care of by the rack and pinion in the elevator fixtures. Racks and pinions are not required in the hangers. Doors cannot be opened from corridor side, except with a key furnished for that purpose, if desired.

Can be furnished special to be detachable from door, for use with No. 733 Hangers when required.

**Note**—No. 743-2 Type C Controller is the same construction as No. 743-1 Type C except made with stronger closing power for heavy doors.

Average weight of Type C Controller is 24 pounds.

The spring and checking mechanisms are separate, and can readily be regulated independently of each other to suit the varying conditions of the doors.

The maximum projection of the controller from the door is  $1\frac{7}{8}$  inches. Made right or left hand, illustration above shows right hand.

Finish, regular, dead black, polished brass handle; other finishes can be furnished on application.

Packed with screws. Device to hold doors open furnished if desired. Device to unlock from corridor side furnished if desired.

### In Ordering State:

**First**—Distance from where jamb bracket is attached, to back edge of slow door.

**Second**—Width of door stiles.

**Third**—Distance from fast door to edge of elevator shaft.

**Fourth**—Distance from edge of elevator shaft to car platform.

**Fifth**—Whether doors are made of wood, kalamein, hollow metal, grill or angle iron.

**Sixth**—Whether jamb bracket is to attach to wood, metal or masonry.

**Seventh**—Width of each door.

**Eighth**—Lap of doors over front or rear jamb and at center of doors.

**Ninth**—Whether right hand (as in cut) or left hand.

**Tenth**—Thickness of Doors.



Illustration shows how controller is unlocked from corridor side.

### List Price

No. 743-1—Type C, Two-speed "Ideal" Elevator Door Controller, regular dead black finish, each	\$37.00
No. 743-1—Type C, Two-speed "Ideal" Elevator Door Controller, polished brass, each	45.00
No. 743-2—Type C, Two-speed "Ideal" Elevator Door Controller, regular dead black finish, each	44.00
No. 743-2—Type C, Two-speed "Ideal" Elevator Door Controller, polished brass, each	51.00
No. 743 —Hold Open Device—Car Part (one required for each car), weight, each $3\frac{1}{2}$ lbs., each	7.50
No. 743 —Hold Open Device—Door Part (one required for each opening), weight, each $\frac{1}{2}$ lb., each	1.75

Discount.....

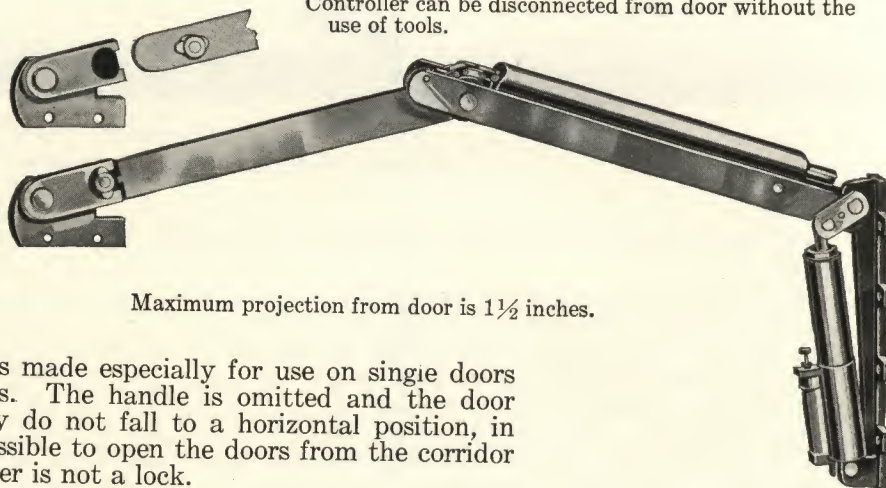


R-W No. 743-D

Patented

## "Ideal" Elevator Door Controller

Controller can be disconnected from door without the use of tools.



Maximum projection from door is 1½ inches.

Type D Controller is made especially for use on single doors for automatic elevators. The handle is omitted and the door arms are made so they do not fall to a horizontal position, in that way making it possible to open the doors from the corridor side. Type D Controller is not a lock.

No. 743-2, Type D Controller is the same construction as the No. 743-1, Type D, except made with stronger closing power for heavy doors.

Average weight of No. 743 D Controller is 18 pounds.

The spring and checking mechanisms are separate and can readily be regulated independently of each other to suit the varying conditions of the doors.

Finish regular, dead black; other finishes can be furnished on application.

Packed with screws.

### In Ordering State:

**First**—Distance from where jamb bracket is attached to back edge of door to which controller handle is attached.

**Second**—Width of stile of door to which controller handle is attached.

**Third**—Distance from door to edge of elevator shaft.

**Fourth**—Distance from edge of elevator shaft to car platform.

**Fifth**—Whether doors are made of wood, kalamein, hollow metal, grill or angle iron.

**Sixth**—Whether jamb bracket is to attach to wood, metal or masonry.

**Seventh**—Width of each door.

**Eighth**—Whether to be used with single, two-speed or three-speed doors; doors in pairs or combination swing-out doors.

**Ninth**—Whether right hand (as in cut) or left hand.



Illustration shows how No. 743-D Controller looks installed

### List Price

No. 743-1—Type D, "Ideal" Elevator Door Controller, regular dead black finish, each.....	\$31.50
No. 743-1—Type D, "Ideal" Elevator Door Controller, Polished brass, each.....	37.00
No. 743-2—Type D, "Ideal" Elevator Door Controller, regular dead black finish, each.....	34.50
No. 743-2—Type D, "Ideal" Elevator Door Controller, polished brass, each.....	39.00
No. 743—Hold Open Device, Car Part (one required for each car), weight, each 3¾ lbs., each.....	7.50
No. 743—Hold Open Device, Door Part (one required for each opening), weight, each ½ lb., each.....	1.75

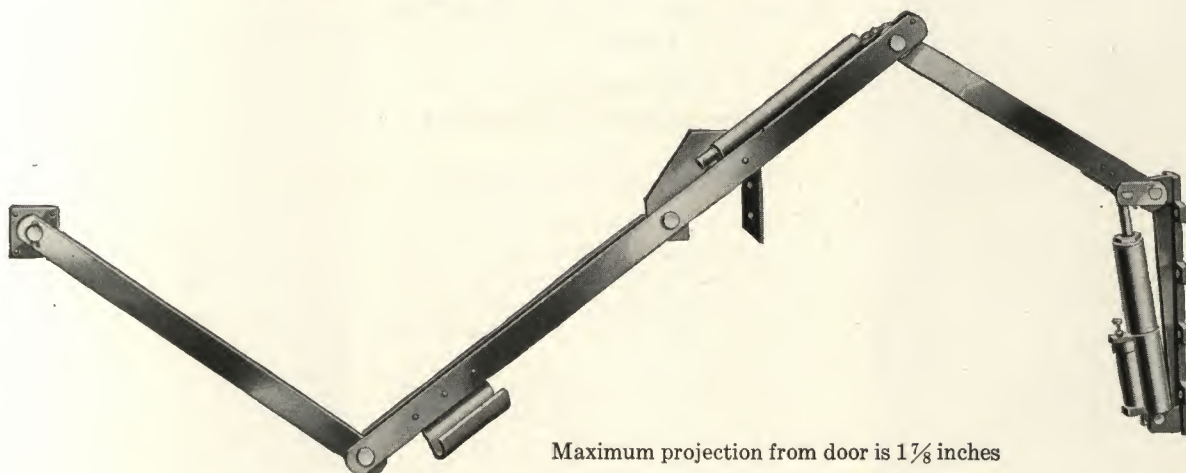
Discount.....



R-W No. 743-E

Patented

## "Ideal" Elevator Door Controller



Maximum projection from door is 1 7/8 inches

Type E Controller is made especially for use on two-speed doors for automatic elevators. The door arms are made so they do not fall to a horizontal position, in that way making it possible to open the doors from the corridor side.

Type E Controller is not a lock.

No. 743-2, Type E Controller is the same construction as the No. 743-1, Type E, except made with stronger closing power for heavy doors.

Average weight of No. 743-E Controller is 24 pounds.

The spring and checking mechanisms are separate and can readily be regulated independently of each other to suit the varying conditions of the doors.

Finish regular, dead black; other finishes can be furnished on application.

Packed with screws.

### In Ordering State:

**First**—Distance from where jamb bracket is attached, to back edge of slow door.

**Second**—Width of door stiles.

**Third**—Distance from fast door to edge of elevator shaft.

**Fourth**—Distance from edge of elevator shaft to car platform.

**Fifth**—Whether doors are made of wood, kalamein, hollow metal, grill or angle iron.

**Sixth**—Whether jamb bracket is to attach to wood, metal or masonry.

**Seventh**—Width of each door.

**Eighth**—Lap of doors over front or rear jamb and at center of doors.

**Ninth**—Whether right hand (as in cut) or left hand.

**Tenth**—Thickness of doors.



### List Price

No. 743-1—Type E, Two-speed "Ideal" Elevator Door Controller, regular dead black finish, each .....	\$37.00
No. 743-1—Type E, Two-speed "Ideal" Elevator Door Controller, polished brass, each .....	42.00
No. 743-2—Type E, Two-speed "Ideal" Elevator Door Controller, regular dead black finish, each .....	44.00
No. 743-2—Type E, Two-speed "Ideal" Elevator Door Controller, polished brass, each .....	48.00
No. 743 —Hold Open Device, Car Part (one required for each car), weight, each 3 1/2 lbs., each .....	7.50
No. 743 —Hold Open Device, Door Part (one required for each opening), weight, each 1 1/2 lb., each .....	1.75

Discount .....



R-W No. 743-IL  
Patented

*"Ideal"*

## Electric Inter-Locks For Elevator Doors

Approved by the  
Underwriters' Laboratories  
and

The Bureau of Standards

Many large cities and some States have passed ordinances requiring the use of Interlocks on Passenger Elevators which prevent the starting of Elevator cars until the doors are closed and locked.

The Casualty Insurance Companies have granted a 10% reduction in the premium on liability risks covering Elevator Door openings when such openings are equipped with approved interlocks, as illustrated.

This combination gives the advantages of the "Ideal" Controller, closing and locking the door quickly and easily, eliminating all noise and slam—also the added advantage of the Interlock or Safety Device, which requires no attention from the operator and provides a device that is positive, of great simplicity and not liable to get out of order.

When any door in the shaft is opened, the controller on that door raises the wire which extends full height of shaft and connects with the cut-out switch, opening the circuit to the car control and preventing operation of car. When doors are closed, the door controllers allow the wire controlling the switch to be pulled down by the weights, closing the circuit through the switch and allowing the car to be operated.

(Continued on Next Page)

*"Ideal"*

## No. 743-IL Emergency Switch



One of these Emergency Switches is furnished for each car, with every installation of Ideal Electric Interlocks.

Pulley and weight shown at right are located in pent house.



No. 743-IL Type "A"



No. 743-IL Type "C" Door Controller, with cut-out switch in pit at bottom of elevator shaft.



No. 743-IL Type "B"



No. 743-IL Type "D"



## The R-W Interlock Equipment Assures Superior Service Because:

- 1st. Uses a single MASTER-SWITCH for an elevator. (Eliminates using a small switch at each door.)
- 2nd. Its construction is unusually substantial, durable and efficient.
- 3rd. Operates by gravity providing positive constant pressure (No springs or small parts to give trouble.)
- 4th. The Master Switch is located where readily accessible.
- 5th. Inspection may be made in an instant. (Avoids onerous task examining switches at each door.)
- 6th. Vastly excels in simplicity, construction, positiveness, ease of attention and thereby provides unusual dependability.

### List Prices, Standard Models

No. 743-1 I.L. Type A, Dead Black Finish, each.....	\$37.00
No. 743-1 I.L. Type A, Plated Finish, each.....	45.00
No. 743-1 I.L. Type B, Dead Black Finish, each.....	37.00
No. 743-1 I.L. Type B, Plated Finish, each.....	45.00
No. 743-1 I.L. Type C, Two-Speed Dead Black Finish, each.....	42.00
No. 743-1 I.L. Type C, Two-Speed, Plated Finish, each.....	50.00
No. 743-1 I.L. Type D, For Push Button Elevator, Dead Black Finish, each.....	37.00
No. 743-1 I.L. Type D, For Push Button Elevator, Plated Finish, each.....	45.00
No. 743-1 I.L. Type E, For Push Button Elevator, Dead Black Finish, each.....	42.00
No. 743-1 I.L. Type E, For Push Button Elevator, Plated Finish, each.....	50.00

### List Prices, Heavy Duty Models

No. 743-2 I.L. Type A, Dead Black Finish, each.....	\$40.00
No. 743-2 I.L. Type A, Plated Finish, each.....	48.00
No. 743-2 I.L. Type B, Dead Black Finish, each.....	40.00
No. 743-2 I.L. Type B, Plated Finish, each.....	48.00
No. 743-2 I.L. Type C, Two-Speed, Dead Black Finish, each.....	50.00
No. 743-2 I.L. Type C, Two-Speed, Plated Finish, each.....	58.50
No. 743-2 I.L. Type D, For Push Button Elevator, Dead Black Finish, each.....	40.00
No. 743-2 I.L. Type D, For Push Button Elevator, Plated Finish, each.....	48.00
No. 743 I.L. Switch, pulley, weights, emergency switch, and control wire, per shaft.....	64.00
No. 743-2 I.L. Type E, For Push Button Elevator, Dead Black Finish, each.....	49.50
No. 743-2 I.L. Type E, For Push Button Elevator, Plated Finish, each.....	57.50

Discount.....

## "Ideal"

### No. 743 Elevator Door Hold Open Device

This Elevator Door Hold Open Device can be used with any of the R-W elevator door controllers. It consists of two parts, a car part and a door part. A car part is fastened to the bottom of the floor of each elevator car. A Door Part is

fastened to one door of each doorway opening, on every floor. The device holds the doors open till it is desired that they be closed, when a pull on the door will disengage the parts, allowing the doors to shut. Weight: Car Part,  $3\frac{3}{4}$  lbs.; Door Part,  $\frac{1}{4}$  lb.

### List Price

No. 743—Hold Open Device, Car Part, each.....	\$7.50
No. 743—Hold Open Device, Door Part, each.....	1.75

Discount.....

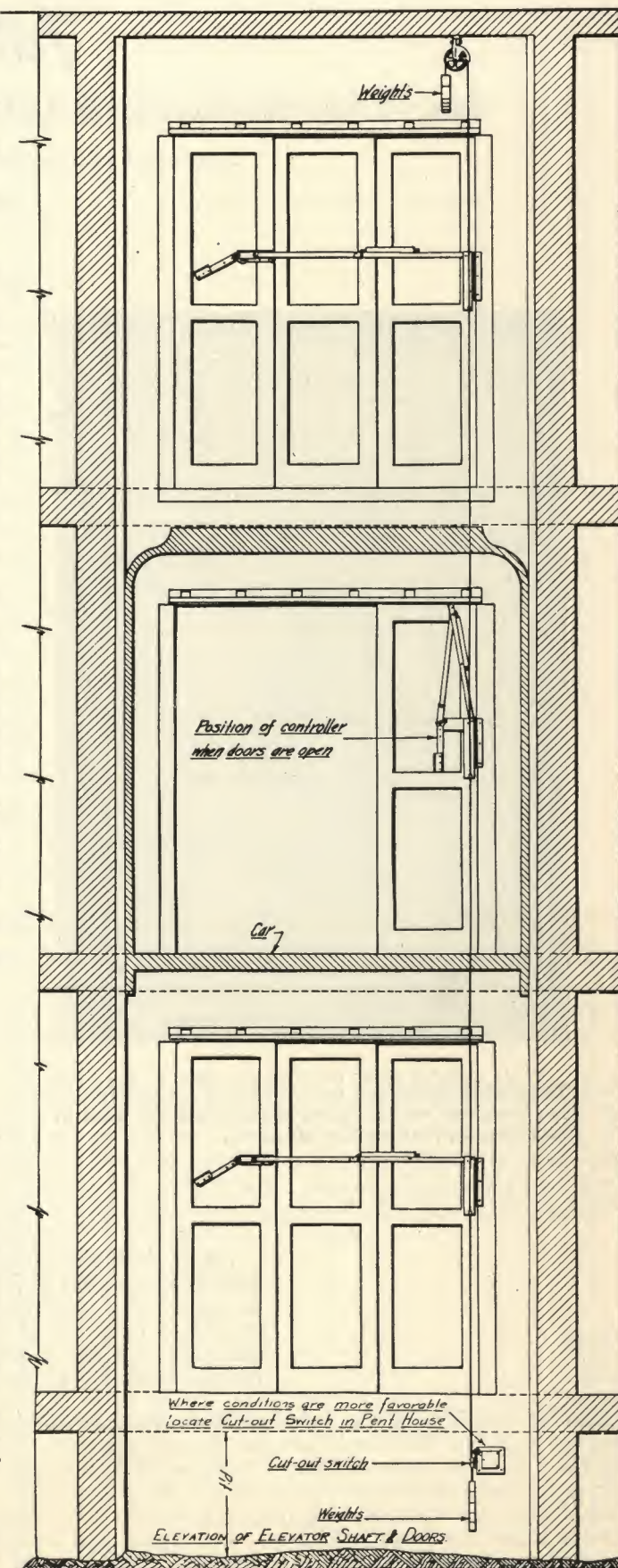


Fig. A-1504



## *"Ideal"*

### No. 744 Mechanical Inter-Lock for Elevator Doors

Approved by the Underwriters' Laboratories

Patented



When elevator doors are open, the lock plate of the Mechanical Interlock is thrown forward and around the handle of the car controller, which positively locks it, and prevents the operation of the car.



When doors are entirely closed, the interlock mechanically releases the car controller, and it can be operated for either up or down movement.

Many cities and states already specify Mechanical Interlocks and the R-W No. 744 has been developed to meet these requirements and at the same time provide a device that is very simple, of few parts and that operates noiselessly. In addition, it requires absolutely no attention from the operator.

The No. 744 Mechanical Interlock is designed for use on Elevators with Electric Controllers where the doors are operated by R-W No. 743 Ideal Elevator Door Controllers. The combination of the No. 744 Ideal Mechanical Interlock and the No. 743 Ideal Elevator Door Controller offers a double protection against accidents; the former preventing the operation of the car except when the doors are closed, and the latter preventing the opening of the doors, except from the car. The Mechanical Interlock requires no attention from operator with feet or hands. The Door Controller positively and quietly closes the doors. (The No. 744 Mechanical Interlock can be furnished with simple horizontal locking bars, instead of the Door Controller, if so desired. See page 69).



## "Ideal"

### No. 744 Mechanical Inter-Lock for Elevator Doors

(Continued)

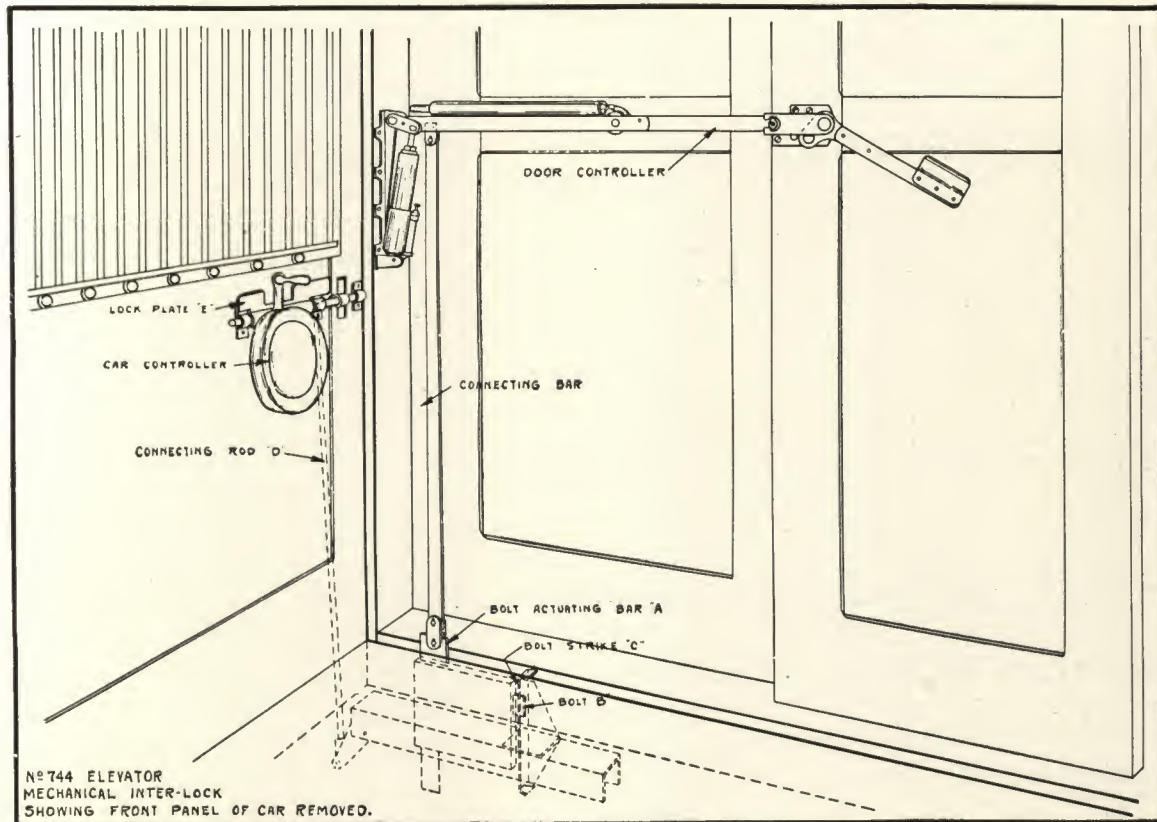


Fig. A-1505—Schematic Diagram

A bar attached to the Door Controller near the back end connects it with the bolt case of the Mechanical Interlock which is attached to the sill. When the doors are opened, the connecting bar attached to the controller raises the bolt actuating bar A, which in turn throws the bolt B forward into contact with the bolt strike C which is attached to the car device. The bolt strike C of the car device is moved horizontally by the action of bolt B, and in so doing, connecting rod D of the car device is raised, throwing the lock plate E forward around the handle of the car controller,

which in turn, is prevented from movement in either direction.

When the doors are closed, the movements are reversed, and the car controller can then be shifted for either up or down movement of the car. If an attempt is made to open the door when car is more than 4" above or below the landing, bolt B drops when thrown slightly forward and notch will engage with the stop in the bolt case and prevent further movement of the door.

#### List Prices

The prices given include the Door Controller, Type A, B or C.

No. 744-1 Mechanical Interlock Type A or B, Dead Black Finish, each	\$50.50
No. 744-1 Mechanical Interlock Type A or B, Plated Finish, each	58.50
No. 744-1 Mechanical Interlock Type C, Dead Black Finish, each	55.50
No. 744-1 Mechanical Interlock Type C, Plated Finish, each	64.00
No. 744-2 Mechanical Interlock Type A or B, Dead Black Finish, each	53.50
No. 744-2 Mechanical Interlock Type A or B, Plated Finish, each	61.00
No. 744-2 Mechanical Interlock Type C, Dead Black Finish, each	63.00
No. 744-2 Mechanical Interlock Type C, Plated Finish, each	71.00
*No. 744 Car Parts for Mechanical Interlock, Per Car	39.00

Discount.....

When doors are wide or heavy specify No. 744-2.

\*Only one car part is required for each elevator.

See Following Page



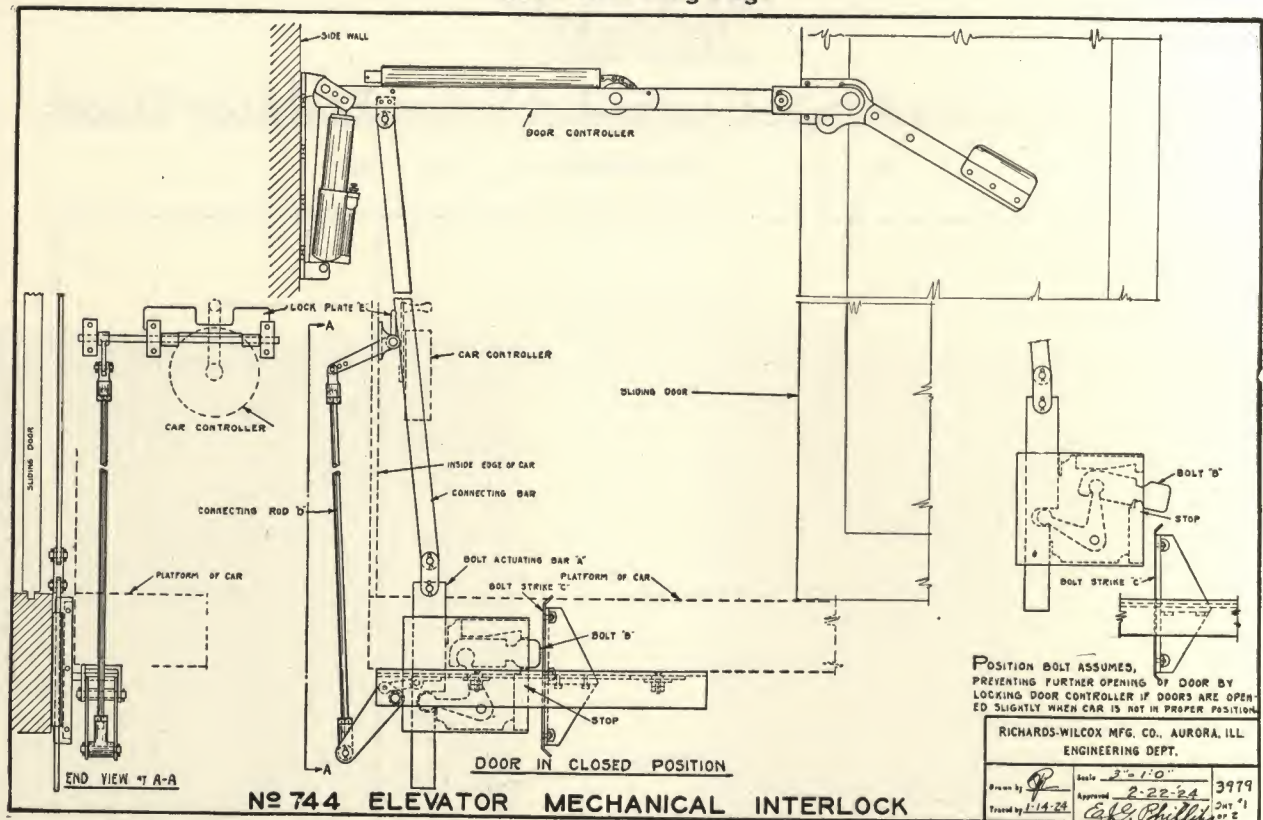


Fig. A-1506—Schematic Diagram

## INFORMATION REQUIRED IN ORDERING

- (1) Distance from jamb bracket fastening to back edge of door to which controller handle is attached.
- (2) Width of stile of door to which controller handle is attached.
- (3) Distance from face of door to edge of the Saddle.
- (4) Distance from edge of Saddle to car platform.
- (5) Are doors made of wood, kalamein, hollow metal, grill or angle iron?
- (6) Is jamb bracket to be fastened to wood, metal or masonry?
- (7) Width of each door.
- (8) Are doors single, two-speed, three-speed, bi-parting, or combination swing-out?
- (9) Left hand (as in cut) or right hand?
- (10) Give lap of doors over front and rear jamb and in the case of two-speed doors, give lap at center also.
- (11) Thickness of elevator car platform.
- (12) Will the parts which are attached to bottom of car be fastened to metal or wood?
- (13) Is the car controller at end of car or on front side: if on end, how far from door side of elevator car (measure outside); if on front side, how far from end of car (measure outside).
- (14) Distance from floor of elevator to controller handle.
- (15) Give distance, measured along front wall, from end of car (outside) to door controller jamb bracket fastening. Which is the nearer to side wall?
- (16) Distance from end of car (measured outside) to wall of elevator shaft or nearest obstruction in the shaft?
- (17) Are walls terra cotta or brick? Give thickness of same.
- (18) Send simple sketch giving the above information.

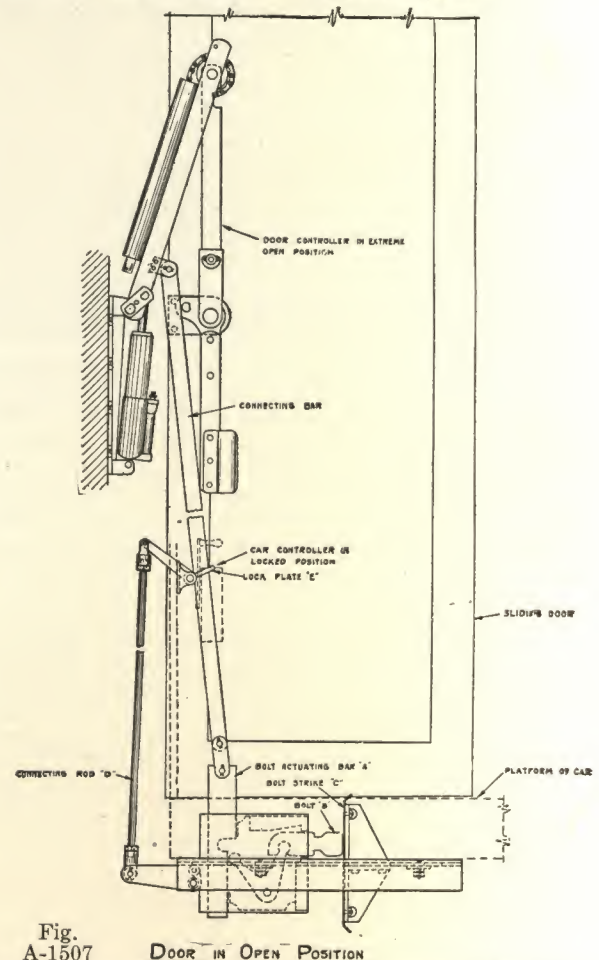


Fig. A-1507

DOOR IN OPEN POSITION



## "Ideal"

### No. 740-A Horizontal Locking Bars



When the Locking Bar is in this position, it is impossible to open the doors from the corridor side



Position of Locking Bar when doors are open

It is sometimes desirable to use an elevator door operating device which is less expensive than the standard door controllers. The No. 740 horizontal locking bars have been designed to meet this demand. The operation is the same as a door controller except that the spring closing power and the oil checking devices are omitted. It is necessary to close the doors manually.

When the doors are closed and the locking bars are in a horizontal position the doors are securely locked. The No. 740 type "A" horizontal locking bars are designed so that the bar can be readily disconnected from the sliding door without the use of tools. It is only necessary to turn the spring knob and withdraw the bar from its connection

to the sliding door. The locking bars require no keeper and the only attachment to the jamb or wall is at the wall pivot end of the locking bars. All locking bars are fitted with non-reversible device which prevents the doors from being re-opened after they have been closed within 3" of the jamb, without first completing the closing movement. This device prevents accidental opening of the door in case the car should leave the landing when the door was not quite closed. Made of steel, dead black finish with solid brass handle. The handle of the No. 740-A horizontal locking bars, when the doors are closed, stands at an angle making it easy to grasp in operating and allowing a direct pull against the doors.

#### List Price

No. 740-A Horizontal Locking Bars, Dead Black Finish, each.....	\$11.00
No. 740-A Horizontal Locking Bars, Brass Plated Finish, each.....	16.50

Discount.....



## "Ideal"

### No. 740-B Horizontal Locking Bars



Illustration shows doors in closed position



When the doors are in open position, the locking bar folds up as shown above.

The type "B" Horizontal Locking Bar is exactly the same in every respect as the No. 740-A, described on the previous page, except that the bar to which the handle is attached extends in a horizontal plain when the doors are closed and the bars are not equipped with the means for readily detaching from the door. The No. 740-B is recom-

mended more especially for single sliding doors without swing-out devices. It is equipped with a non-reversing device to prevent opening the door after it has been closed within three inches of the jamb without first completing the closing movement.

#### List Price

No. 740-B Horizontal Locking Bars, Dead Black Finish, each.....	\$11.00
No. 740-B Horizontal Locking Bars, Brass Plated Finish, each.....	16.50

Discount.....



## "Ideal"

### No. 741-A Electro-Mechanical Inter-Lock With Horizontal Locking Bars

Pulley and weight shown at right  
are located in pent house.



When the Locking Bar is in this position, it is impossible to open the doors from the corridor side.

Patented



Detail at right shows cut-out switch in pit at the bottom of the elevator shaft.

This inter-lock consists of a horizontal locking bar, similar to No. 740-A, illustrated on page 65, with addition of electro-mechanical inter-lock. The inter-locking device consists of a single switch for each elevator shaft, an operating wire extending the full height of the shaft and connecting at each door opening to the locking bars. By means of this device the car controller electric circuit is

broken whenever any door in the shaft is open. This prevents operation of the car until doors are closed. This device is not a door closer nor a door check but it is a door lock and an inter-lock. For similar equipment complete with closing and checking mechanism see No. 743-IL inter-lock on pages 60 and 61.

#### List Price

The prices below include the Horizontal Locking Bars.

No. 741-A Electro-Mechanical Interlock, Dead Black Finish, each.....	\$16.50
No. 741-A Electro-Mechanical Interlock, Brass Plated Finish, each.....	21.50
No. 741-I.L. Switch, pulley, weights, emergency switch and control wire, per shaft.....	64.00

Discount.....



## "Ideal"

### No. 741-B Electro-Mechanical Inter-Lock with Horizontal Locking Bars



No. 741-B Electro-Mechanical Elevator Door Interlock with Horizontal Locking Bars, showing cut-out switch in pit at the bottom of elevator shaft.

Pulley and weight shown at right are located in pent house.



No. 741-B Electro-Mechanical Elevator Door Interlock with Horizontal Locking Bars, showing position of locking bars when doors are open.

No. 741-B is identical with the No. 741-A, illustrated on the previous page, except that the handle bar on the door operating device extends in a horizontal plane, when the doors are in the locked and closed position. The

single unit switch for each elevator shaft, which has proven so simple and effective in our No. 743-IL Inter-lock, is used with this device.

#### List Price

The prices below include the Horizontal Locking Bars.

No. 741-B Electro-Mechanical Interlock, Dead Black Finish, each.....	\$16.50
No. 741-B Electro-Mechanical Interlock, Brass Plated Finish, each.....	21.50
No. 741-I.L. Switch, pulley, weights, emergency switch and control wire, per shaft.....	64.00

Discount.....



## "Ideal"

### No. 745 Mechanical Inter-Lock for Elevator Doors with Horizontal Locking Bars



When elevator doors are open, the lock plate of the Mechanical Interlock is thrown forward and around the handle of the car controller, which positively locks it and prevents the operation of the car.



When doors are entirely closed, the interlock mechanically releases the car controller, and it can be operated for either up or down movement.

No. 745 Mechanical Inter-lock is a combination of No. 740 Horizontal Bars with the mechanical inter-locking equipment used with the No. 744 Inter-Lock, illustrated on pages 62 to 63. This is a less expensive device, the door closing and checking features, which are part of this complete 744 equipment, being omitted, comes in two

styles: Type A, with handle standing in an angular position when door is closed, and a simple feature for detaching from the door; Type B, with handle standing in a horizontal position when the doors are closed, not easily detachable from the door.

#### List Price

The prices below include the Horizontal Locking Bars.

No. 745-A Mechanical Interlock, Dead Black Finish, each.....	\$28.50
No. 745-A Mechanical Interlock, Brass Plated Finish, each.....	36.50
No. 745-B Mechanical Interlock, Dead Black Finish, each.....	28.50
No. 745-B Mechanical Interlock, Brass Plated Finish, each.....	36.50
*No. 744 Car Parts for Mechanical Interlock, per car.....	39.00

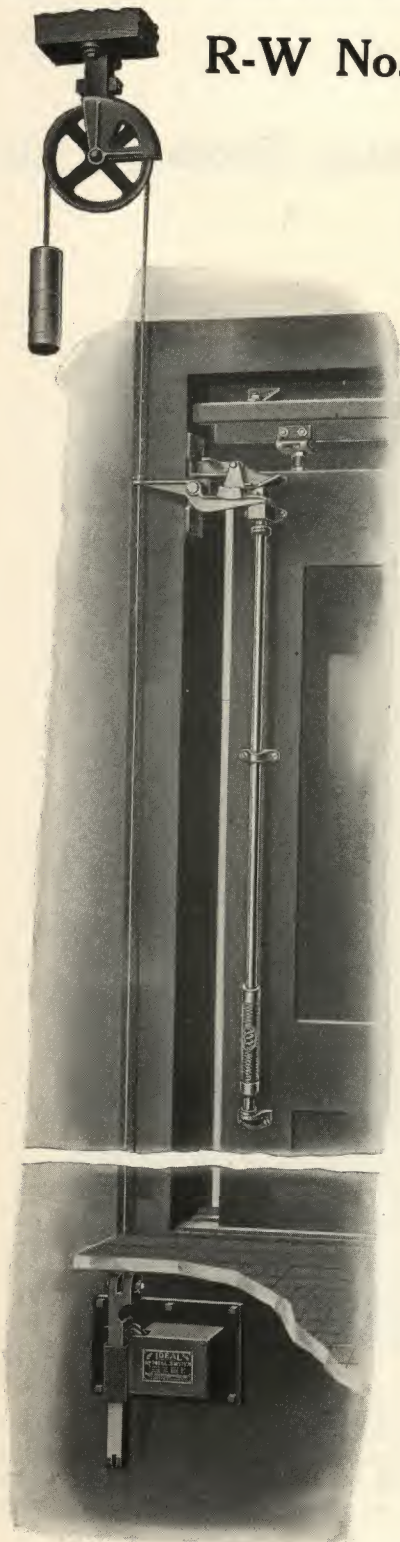
Note—\*Only one Car Part is required for each elevator.

Discount.....

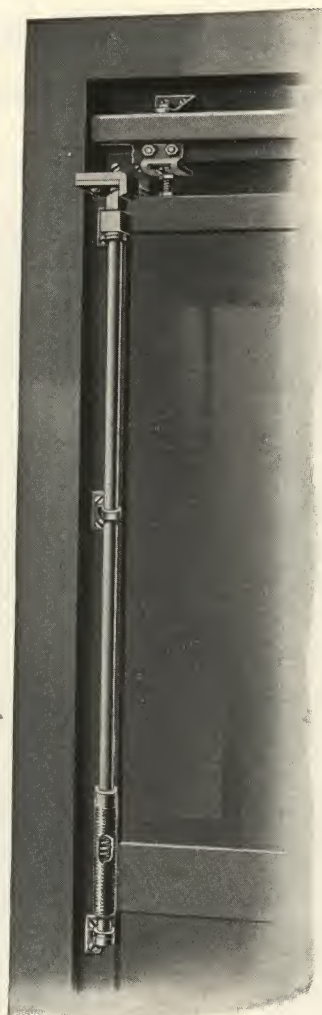
*Ideal Elevator Door Equipment will do all you expect it to do, and more*



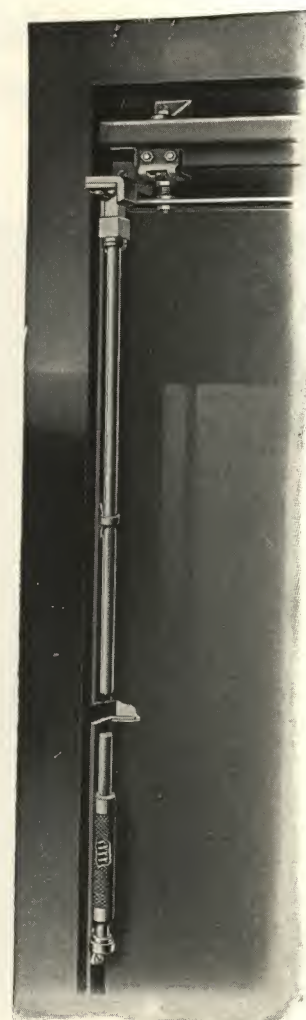
## R-W No. 625-IL Inter-Locking Elevator Door Bar Lock



Type "A" Bar Lock  
with IL Equipment



Type "B" Bar Lock



Type "C" Bar Lock

When an inexpensive Interlocking Device is required, the No. 625-IL equipment may be used.

When any door in the shaft is opened, the bar lock raises the wire which extends the full height of the shaft and connects with the cut-out switch, opening the circuit to the car control and preventing operation of the car. When the doors are closed, the bar lock trips the lever which holds the wire in the raised position and the switch is closed by the weight shown at the lower end of the wire.

The No. 625-IL Bar Lock must always be located on the forward stile of the door as shown in the illustration. Can be furnished for either Nos. 625-A, B or C Bar Locks shown above.

Two finishes, dead black, or dead black with solid brass handle and door bracket. Weight  $3\frac{1}{4}$  pounds.

### In Ordering State:

- First—Whether door brackets are to be attached to wood, kalamein, hollow metal, grill or angle iron door.
- Second—Whether keeper is to be attached to wood, metal or masonry.
- Third—Send sketch showing manner in which keeper is to be attached or space available for attaching.
- Fourth—Are doors right or left hand? (cut shows right hand).

### List Prices

No. 625-IL A, B or C Interlocking Bar Lock, Black Finish, each	\$12.50
No. 625-IL A, B or C Interlocking Bar Lock, Brass Trimmed, each	14.75
No. 625-IL Switch, pulley, weights, emergency switch and control wire, per shaft	64.00

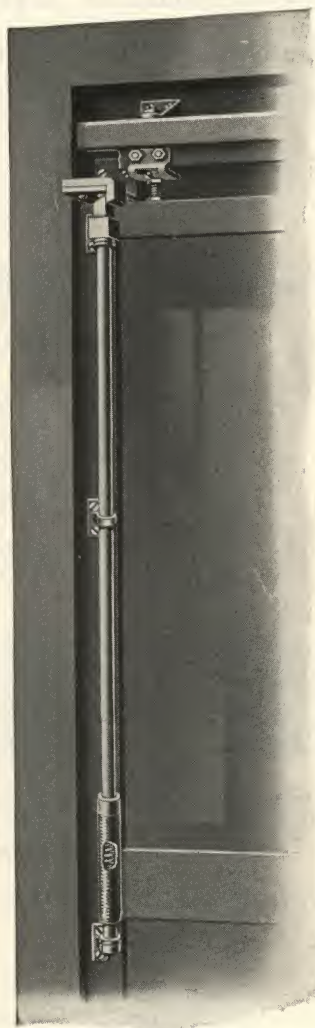
Discount.....



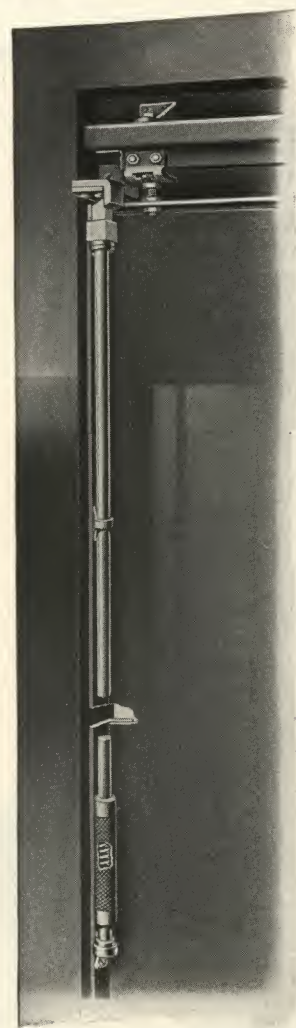
## "Ideal" Elevator Door Bar Locks R-W No. 625



**R-W No. 625-A**  
Elevator Door Bar Lock  
Applied to  
Wood or Kalamein  
Doors



**R-W No. 625-B**  
Elevator Door Bar Lock  
Applied to  
Narrow Stile Doors.



**R-W No. 625-C**  
Elevator Door Bar Lock  
Applied to  
Angle Iron Doors

A reliable lock, strongly made, attractive in appearance. Locking spring enclosed in knurled handle, protecting it from dust and possible damage.

Length, 3 feet 6 inches. Maximum projection from door, 1 $\frac{3}{8}$  inches.

Cushion washers between all contacting parts makes the bolt noiseless in operation.

Can be arranged to unlock from corridor side.

Can be furnished with interlocking attachment to prevent operation of elevator before doors are closed, see page 70.

Keeper furnished as required.

Two finishes, dead black, or dead black with solid brass handle and door brackets.

Packed, wrapped, complete with screws.

Weight, 3 $\frac{1}{4}$  lbs.

In ordering state:

**First**—Whether door brackets are to be attached to wood, kalamein, hollow metal, grill or angle iron door.

**Second**—Whether keeper is to be attached to wood, metal or masonry.

**Third**—Send sketch showing manner in which keeper is to be attached or space available for attaching.

**Fourth**—Are doors right or left hand? (cut shows right hand).

**Fifth**—Is bar lock to be attached to front or back stile of door? (cut shows No. 625 Locks attached to front stile, but either can be made to attach to opposite stile.)

**Sixth**—If used with doors in pairs, state to which door bar lock will be attached (to right or left hand door).

### List Price

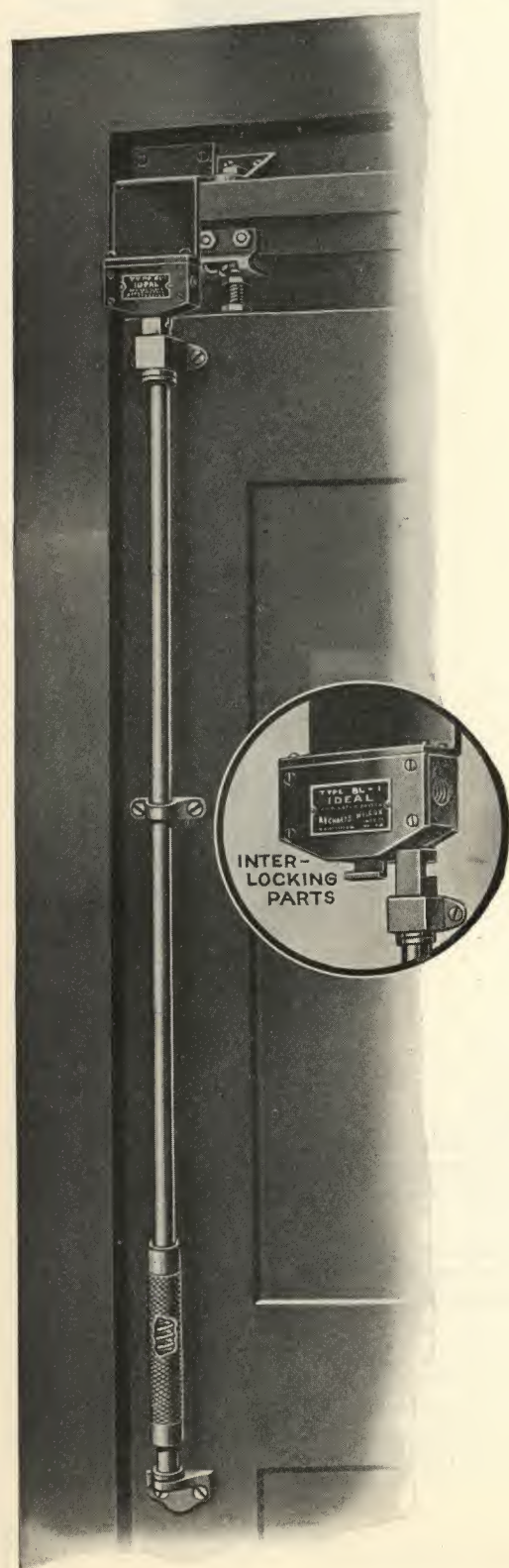
No. 625—A, B or C, R-W Elevator Door Bar Lock, dead black finish. Each.....	\$7.50
No. 625—A, B or C, R-W Elevator Door Bar Lock, dead black with solid brass handle and door brackets, polished. Each.....	9.50

Discount.....



## R-W No. 725 Electro-Mechanical Inter-Lock

Approved by The National Board of Underwriters



The No. 725 Interlock consists of a Bar Lock similar to the No. 625, illustrated on the previous pages, and an Electric Cut-Out Switch, which serves as a keeper for the bar lock.

The upper end of the bar lock has a hook which engages with the movable part of the switch, so that when the bar is released the contact block in the switch is positively pulled downward, breaking the electric circuit thru the car controller.

The switches and bar locks are reversible for right or left hand doors.

Bar Locks of A, B or C styles of brackets can be furnished (see page 72). The bar locks are furnished in two finishes; dead black; dead black with solid brass handle and door brackets.

Switch is always furnished in dead black finish. One switch required at each doorway.

Weight, 725 Interlock, 8½ lbs.

### In Ordering State

**First**—Whether door brackets are to be attached to wood, kalamein, hollow metal, grill or angle iron door.

**Second**—Whether keeper is to be attached to wood, metal or masonry.

**Third**—Send sketch showing manner in which keeper is to be attached or space available for attaching.

**Fourth**—Are doors right or left hand? (Illustration shows right hand.)

### List Price

No. 725-A, B or C Interlock, Black Finish, each . . . . .	\$22.50
No. 725-A, B or C Interlock, Black Finish, Brass Trimmed, each . . . . .	24.50

Discount.....



## Elevator Door Hangers

**R-W No. 526**  
"Invincible"

For Doors Weighing up to 300 Pounds

**R-W No. 626**  
"Invincible"



Distance top of door to bottom of track: Minimum, 1 inch; Maximum,  $2\frac{3}{8}$  inches.

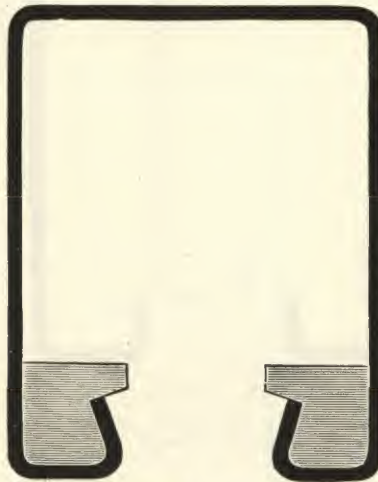


Fig. A-1508  
Full Size Cross-Section of No. 526 Wood Lined Trolley Track.



Distance top of door to bottom of track: Minimum, 1 inch; Maximum,  $2\frac{3}{4}$  inches.

### Noiseless and Easy Running

R-W No. 526: Track, No. 16 gauge steel, hard maple lined, No. 526 clincher type. Wheels, steel,  $1\frac{7}{8}$  inches diameter. Drop forged steel frames and hardened bearings. Finish, black enamel. Adjustment, lateral and vertical. Apron, 4 inches long,  $3\frac{1}{2}$  inches wide,  $\frac{3}{16}$  inch thick. For doors  $1\frac{3}{4}$  inches or more in thickness. Packed, one pair hangers with screws, in metal-edged box. Weight: hangers, per pair,  $5\frac{3}{4}$  lbs.; track per foot,  $1\frac{3}{4}$  lbs.

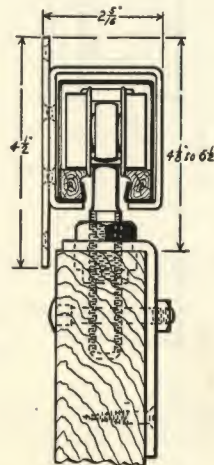


Fig. A-1509  
Cross-Section. View of No. 526 Hanger

R-W No. 626: Track, No. 16 gauge steel, hard maple lined, No. 526 clincher type. Wheels, steel,  $1\frac{7}{8}$  inches diameter. Drop forged steel frames and hardened bearings. Finish, black enamel. Adjustment, vertical only. Plate, regular, 5 inches long,  $1\frac{3}{8}$  inches wide, for doors  $1\frac{3}{8}$  inches or more in thickness; for thinner doors, specify plate  $3\frac{1}{2}$  inches long, 1 inch wide. Packed, one pair hangers, with screws, in metal edged box. Weight: hangers, per pair, 4 lbs.; track, per foot,  $1\frac{3}{4}$  lbs.

### List Price

No. 526 Hangers, less brackets.	Per pair	.....	\$4.50
No. 626 Hangers, less brackets.	Per pair	.....	4.50
No. 526 Track.	Per foot	.....	.60
Brackets to suit requirements. For prices, see page 195.			

**Note**—Always specify brackets by number and give thickness of doors.

**Discount**.....



No. 26

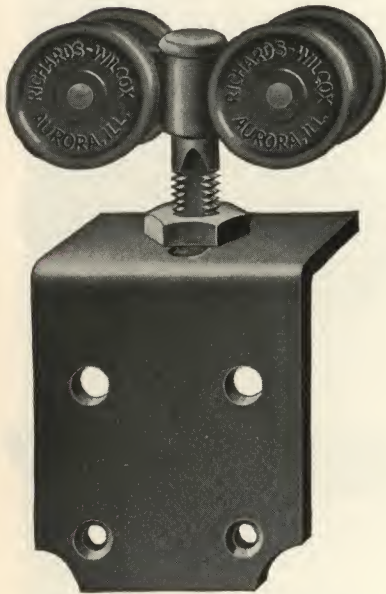
R-W

No. 226

## Elevator Door Hangers

Ball-Bearing

For Doors Weighing up to 300 Pounds



**R-W No. 26**

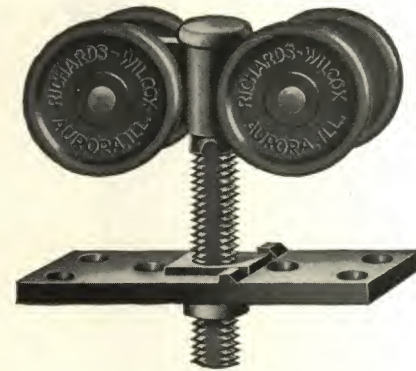
Distance top of door to bottom of track: Minimum, 1 inch; Maximum,  $2\frac{3}{8}$  inches.

R-W No. 26: Track, No. 16 gauge steel, No. 31 type. Wheels, steel,  $2\frac{1}{8}$  inches diameter. Drop forged steel frames and hardened bearings. Finish, black enamel. Adjustment, lateral and vertical. Apron, 4 inches long,  $3\frac{1}{2}$  inches wide,  $\frac{3}{16}$  inch thick. For doors  $1\frac{3}{4}$  inches or more in thickness. Packed, one pair hangers with screws, in metal edged box. Weight: hangers, per pair,  $5\frac{1}{2}$  lbs.; track, per foot,  $1\frac{1}{2}$  lbs.



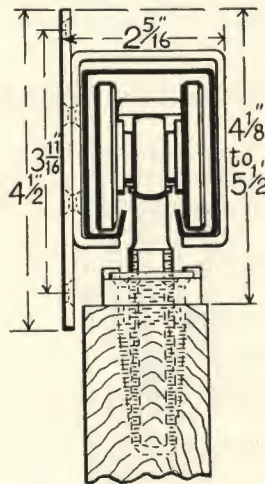
**Fig. A-1510**

Full Size Cross-Section of No. 31 Trolley Track



**R-W No. 226**

Distance top of door to bottom of track: Minimum, 1 inch; Maximum,  $2\frac{3}{4}$  inches.



**Fig. A-1511**

Cross-Section View with No. 26x31 Bracket.

R-W No. 226: Track, No. 16 gauge steel, No. 31 type. Wheels, steel,  $2\frac{1}{8}$  inches diameter. Drop forged steel frames and hardened bearings. Finish, black enamel. Adjustment, vertical only. Plate, regular, 5 inches long,  $1\frac{3}{8}$  inches wide, for doors  $1\frac{3}{8}$  inches or more in thickness; for thinner doors specify plate  $3\frac{1}{2}$  inches long, 1 inch wide. Packed, one pair hangers with screws in metal-edged box. Weight: hangers, per pair,  $4\frac{1}{4}$  lbs.; track, per foot,  $1\frac{1}{2}$  lbs.

### List Price

No. 26 Hangers, less brackets. Per pair.....	\$3.50
No. 226 Hangers, less brackets. Per pair.....	3.50
No. 31 Track, black. Per foot.....	.25

Brackets to suit requirements. For prices, see page 195.

Discount.....

**Note**—Always specify brackets by number and give thickness of doors.



## Elevator Door Hanger

R-W No. 126

Ball-Bearing

For Doors Weighing up to 200 Pounds



Distance top of door to bottom of track: Minimum,  $1\frac{1}{8}$  inches; Maximum,  $2\frac{3}{8}$  inches.



Full Size Cross-Section of No. 30  $\frac{1}{2}$  Trolley Track

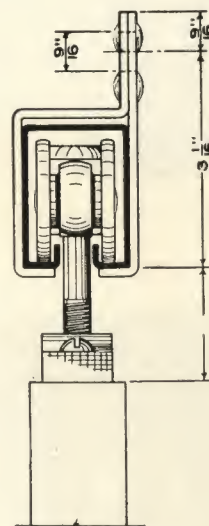


Fig. A-1512 Cross-Section View

Track, No. 16 gauge steel, No. 30  $\frac{1}{2}$  type. Wheels, steel,  $1\frac{3}{4}$  inches diameter. Drop forged steel frames and hardened bearings. Finish, black enamel. Adjustment, vertical only. Plate,  $3\frac{1}{2}$  inches long, 1 inch wide. Weight: hangers, per pair,  $3\frac{3}{4}$  lbs.; track, per foot,  $1\frac{1}{3}$  lbs.

### List Price

No. 126 Hangers, less brackets. Per pair.....	\$3.50
No. 30 $\frac{1}{2}$ Track, black. Per foot.....	.21
Brackets to suit requirements. For prices, etc., see page 195.	

Discount.....

Note—Always specify brackets by number.

R-W No. 432

## “Standard” Elevator Door Hanger

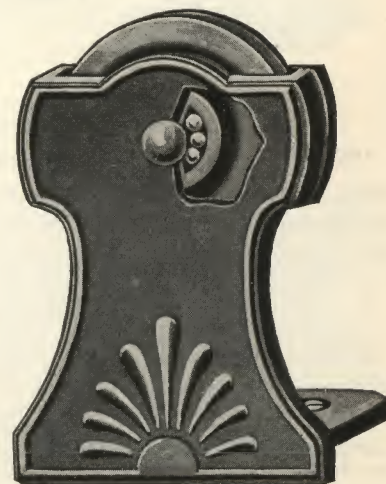
For Doors  $1\frac{1}{8}$  Inches or More in Thickness  
Ball or Roller-Bearing

Track, steel bar: No. 1,  $2 \times \frac{1}{4}$  inches, or No. 2,  $2 \times \frac{5}{16}$  inches, No. 432 type. Made up to 12 feet in lengths. Wheels in ball bearing hanger are steel and in roller bearing hanger, are lathe turned, grey iron,  $3\frac{1}{2}$  inches diameter. Bearings, steel rollers or steel balls. Finish, black enamel. Weight, hangers, per pair, 7 lbs.; track, per foot: No. 1,  $1\frac{3}{4}$  lbs.; No. 2, 2 lbs. Track is screwed or bolted to frame; no brackets required.

### List Price

No. 432-R Hangers, roller-bearing. Per pair.....	\$2.00
No. 432-B Hangers, ball-bearing. Per pair.....	2.40
No. 432-1 Track. Per foot.....	.14
No. 432-2 Track. Per foot.....	.16

Discount.....

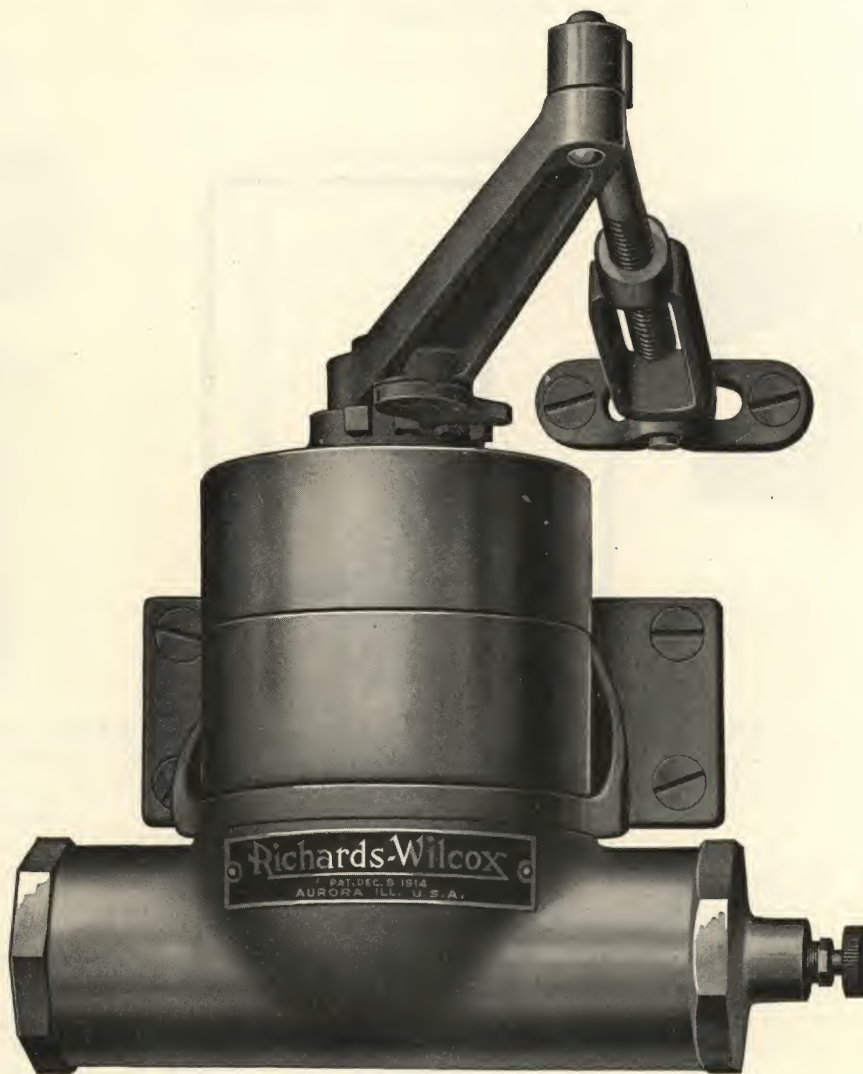


Clearance required above top of door, 6 inches  
Distance top of door to top of track, 3 inches



## R-W No. 643 Door Closer and Check

Patented



Made in Six Sizes

### General Construction

The R-W Door Closer and Check employs the old, time-tried crank and pitman, checking mechanism improved and simplified. In R-W Checks all working parts used in the checking cylinder are made of steel drop forgings.

### The Spring:

**Broken Springs**—It is impossible to over-wind the spring in the R-W Check. While the tension of the spring can be adjusted to suit conditions by the pawl and tooth-dog, the limited number of teeth on the tooth-dog makes over-winding impossible. The spring power is a unit in itself, which can be removed if desired without taking check off the door.

### Checking Mechanism:

The checking mechanism is entirely separate from the operating mechanism. The spindle stuffing box is above the liquid level. The liquid is a non-freezing oil in which the main working parts are emersed, has high lubricating qualities and contains no alcohol.

### Reversible Feature:

The R-W Check can be changed from right to left by simply swinging the arm from one side to the other, the pawl that engages the toothed dog being so placed as to engage on either side. These features make the Richards-Wilcox the only truly reversible check on the market.

### General Features

No special wrenches or tools are required in assembling or winding up the spring.



## R-W No. 643 Door Closer and Check

### List Prices

Size of Check	Description of Doors	Weight Each	List Price Each
1	For screen and very light interior doors.....	6 lbs.	\$5.20
2	For light interior doors not exceeding 3 feet wide and vestibule doors not exceeding 2 ft. 6 in. wide.....	7½ lbs.	6.60
3	For medium weight interior doors not exceeding 3 ft. wide, or light outside doors not exceeding 2 ft. 6 in. wide	10 lbs.	8.00
4	For heavy interior doors or medium weight outside doors not exceeding 3 ft. wide.....	12 lbs.	9.60
5	For heavy outside doors not exceeding 3 ft. 6 in. wide....	15 lbs.	12.80
6	For extra heavy outside doors and large doors operated against very strong drafts...	17½ lbs.	16.00

On higher doors use next larger size

Packed, One in Corrugated Fibre Box, with Screws

The above calculations are based on Standard doors. Extra heavy doors or doors subject to strong drafts require a check one size larger than specified. Checks are furnished regularly in gold bronze. Checks furnished in silver bronze or ivory black at the same prices as gold bronze. Prices for special finishes on application.

### Size of Door Closer and Check Required for Fire Doors

Width of Door	Doors up to 7' high		Doors over 7' high	
	2 ply or sheet metal	3 ply	2 ply or sheet metal	3 ply
2' 6"	No. 2	No. 2	No. 3	No. 3
3' 0"	No. 2	No. 3	No. 3	No. 4
3' 6"	No. 3	No. 4	No. 4	No. 5
4' 0"	No. 4	No. 5	No. 5	No. 6

On higher doors use next larger size.

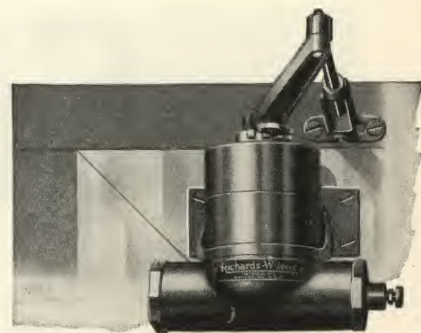
### Brackets

Prices of Different Styles of Brackets in Gold Bronze, Ivory Black or Silver Finish.

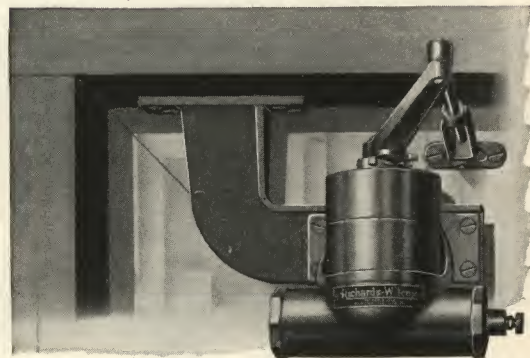
Style of Bracket	Size No. 1	Size No. 2	Size No. 3	Size No. 4	Size No. 5	Size No. 6
Soffit Bracket...	\$ .50	\$ .60	\$ .70	\$ .80	\$1.00	\$1.20
Flush Bracket...	.70	.80	1.00	1.20	1.40	1.50
Corner Bracket...	.80	1.00	1.20	1.50	1.80	1.90

Discount.....

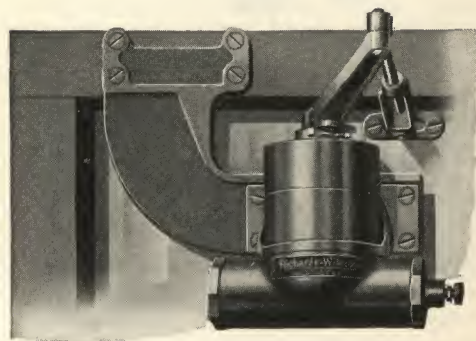
Be sure to mention what style Bracket is desired



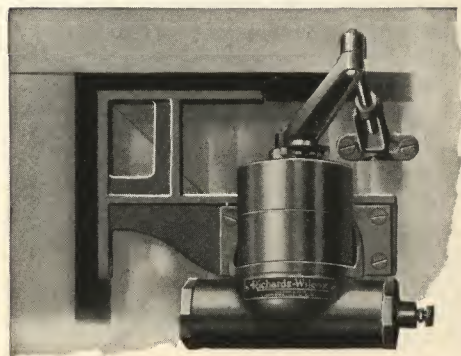
Standard Attachment



Attachment by Soffit Bracket



Attachment by Flush Bracket



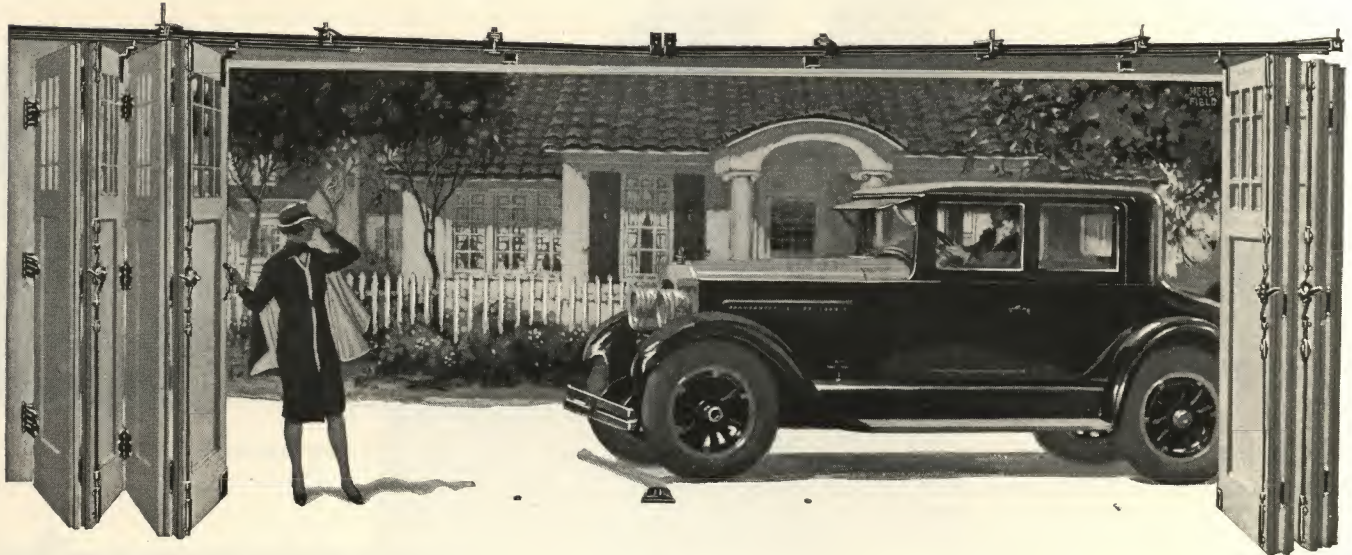
Attachment by Corner Bracket



# Slidetite

Patented

## Garage Door Hardware



**T**HE sliding-folding method of opening and closing a series of doors in one opening has long been conceded by authorities as being the most desirable of all methods.

The actual designing and producing of hardware that would stand the gaff, yet permit even large, wide and heavy doors to be operated according to this sliding-folding principle has however been an entirely different matter.

To produce hardware that would be: strong enough to last for years; attractive in appearance; easy to install; of moderate price; yet, handling the doors in an invariably easy, quick and weathertight manner; this has been the aim of engineers and manufacturing concerns for years.

So thoroughly did our engineers and production experts go into this subject that they at last produced and perfected several groups of equipment which met the varying and stern requirements in every particular.

This equipment proved to be so dependable that the word Slidetite was coined by us and applied to it.

There are several groups of Slidetite; each group designed especially for some certain situation—and there performing its duty in a more satisfactory way than any other equipment could.

**R-W No. 434 Slidetite** is equipment which was designed especially to operate heavy industrial doors. It has to withstand the severe service and strains which doors of great weight are subjected to. Railroad shop doors, round-house doors, large doors for warehouses and doors of a like character are handled quickly and easily by this equipment. (See pages 244 and 245).

**R-W No. 435 Slidetite** is a popular priced equipment used on private and public garages where the individual doors weigh from 125 to 200 pounds each and where only ordinary use is made of the doors. (See left hand pages 80 to 109)

**R-W No. 1035 Slidetite** is a little more expensive than the No. 435 equipment. It is also used on private and public garages but especially where the service is frequent and severe. Such parts as are subjected to unusual stress and strain are greatly strengthened. (See right hand pages 81 to 109).

**R-W No. 1135 Slidetite—Ideal** is the outfit de lux for private or public garages. It is a combination of the finest 1035 hardware plus the addition of the superbly operating Ideal Elevator Door Hangers and Track Equipment. Friction is practically eliminated (See pages 110 and 111).

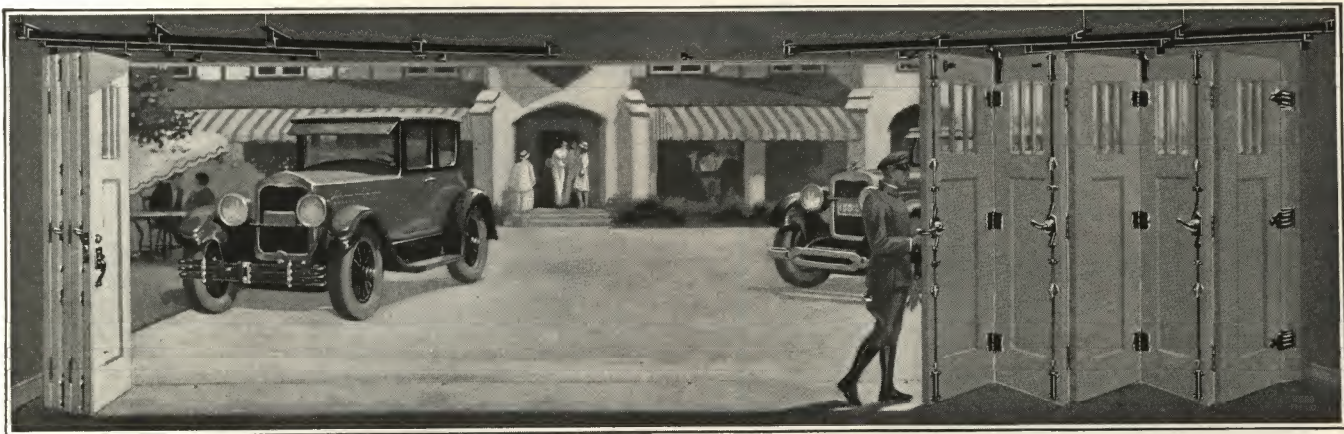
**R-W No. 1235 Slidetite** equipment is used on public and industrial garages where it is desired to use not only exceptionally heavy but also very wide doors. (See pages 112 and 113).

**R-W No. 1335 Slidetite** equipment is used only on Fire Department Doors where the rapid automatic action of the doors allow the fire-fighting apparatus to make a quick get-away. (See page 114)

**R-W No. 1435 Slidetite** equipment consists of No. 435 Slidetite Sets using No. 31 Track, but packed all in one box (track included). This equipment is only furnished in from two to six door sets. (See page 115)

Believing that Slidetite has no equal either in material, workmanship or ease of operation, the entire Richards-Wilcox organization stands unqualifidly back of every Slidetite set sold.





## Slidetite Defined.

Slidetite equipment consists of sets of hardware for a series of doors, from 2 to 10 in one opening, so hinged together and suspended at regular intervals by means of hangers running in overhead trolley track that the doors open or close with a sliding-folding movement in such a manner that at all times they occupy a minimum amount of space.

## In-Opening Doors.

If possible it is best to use in-opening Slidetite equipment so that the doors will slide and fold **INSIDE** the building—away from the outside snow drifts. When this is done snow does not have to be shoveled away before the doors can be opened.

## Out-Opening Doors

For those who live in localities where there is no snow in winter time and for those who for one reason or another desire out-opening doors, then Slidetite sets containing special hardware which will make this possible can be secured.

## Wide Openings Possible

Openings from 8 to 30 feet wide may be quickly and securely closed by some one of several Slidetite sets. These openings are clear—no center posts are needed, provided the cross-beam is heavy enough to carry the roof structure.

This free, unobstructed space is a desirable feature, especially for large openings, as cars may then be placed in the garage in the position allotted them with ease.

## Opening Tightly Closed.

One of the outstanding features of Slidetite is that the nature of the operation of the doors cause them to be closed tighter against each other, against the jambs, lintel and sill than any other method of door operation. The doors present a perfectly weathertight face to the elements whenever closed.

## Narrow Doors.

In order that the doors may operate in a minimum space it is necessary that they be narrow. They should not be over three feet in width each. It is also necessary that all doors in an opening be of exactly the same width.

## Little Wind Surface.

The doors being narrow present little surface to the wind, hence they may be opened or closed by a child even in the face of a strong head-on wind.

## Architecturally Artistic.

From an architectural standpoint, Slidetite doors lend character to a garage. Being

narrow they allow narrow glass panels to be used and an individual door construction that always has a splendid appearance.

## Number of Doors.

The number of doors required depend upon the size of the opening. Doors measuring 3 feet wide give best results. Slidetite equipment is furnished in sets for 2, 3, 4, 5, 6, 7, 8, 9 and 10 doors, for clear openings from 8 to 30 feet wide.

## Doors Not Included

The price of a set of Slidetite equipment does not include the price of the garage doors themselves. Garage Doors are illustrated, described and priced on page 249, Industrial Doors on pages 246 to 257.

## How Doors Operate.

Slidetite doors are opened by a sliding-folding motion which carries the series of doors to one or both sides of the opening. The doors being now compactly folded together may be swung clear of the opening and left closely hugging and parallel to the front wall, if there be space there for them.

## Doors Stand at Angle

When the doorway is open and the doors are folded compactly together at the sides of the opening they will stand there at any desired angle (or parallel) to the front wall, depending, however, upon the width of the front wall space adjoining the opening.

## Easy Operating.

Slidetite doors always open and close easily because the weight of the doors is not only carried by the hinges which attach the doors in each series together and attach the doors nearest the side walls to the jambs, but their weight is also carried by easy rolling hangers which run in overhead track.

## Weight of Hardware.

Slidetite equipment is furnished in three weights of hardware; Light, Medium and Heavy Weight. This makes it possible for each weight door to be hung on hardware exactly suited in strength for it.

## Hardware Required.

Each Slidetite set consists of such quantities of steel trolley track, roller bearing hangers, door locking bolts, track brackets, floor guides, hinges, bow handles and tie rods as are necessary to operate the number of doors for which the set is intended.

## Bracket Adjustments.

Intermediate and End Brackets are adjustable laterally and vertically and are so

designed that the bracket arm-flanges clamp the top of the track firmly in place by tightening the bolt by which the bracket proper is attached to the bracket arm.

Brackets are swiveled to permit the track to be set at an angle suitable to the thickness of the doors.

## Hangers.

The Hangers support and guide the end of certain doors and prevent their sagging. Hangers have vertical adjustment, ball-bearing swivel pendants, steel wheels and strong aprons. They operate easily and smoothly, are safe and strong. A very large factor of safety is provided for.

## Hinges

All hinges are neat in appearance and very strong. Where it is necessary that the doors be offset to clear the jambs and give an unobstructed opening or where, on out-opening doors, the door locking bolts must be cleared to allow the doors to be folded together then such offset hinges as are necessary are furnished.

## Locking Bolts.

By referring to pages 473 to 481 you will notice that you have a large number of door locking bolts to choose from. Where the various sets specify the use of certain locking bolt combinations others may be substituted if desired by deducting the price of the ones specified and adding the price of the ones desired to the set price of the Slidetite equipment being purchased.

## Special Locking Bolts.

When the method of operating the doors of certain in-opening sets of Slidetite does not permit the use of a single swinging entrance door then entrance may be made through the Slidetite doors from the outside if one of the following door locking bolts are used: No. 317 x 527; No. 517 x 527; No. 617 x 527: (Pages 475 to 478); or the ones with the cylinder locks—Nos. 517 x 427 and 617 x 427. (Pages 477, 479).

## Locks and Latches for Entrance Doors.

The No. 419 Latch as shown on page 463 will be found to be very satisfactory, while other entrance door locks and latches are illustrated and priced on page 472.

## Wicket Entrance Doors.

Wicket Doors are small entrance doors which may be built in and become a part of any larger door. Further information concerning Wicket Entrance Doors is given on Page 164.





Fig. A-1513—The price of a set of Slidetite equipment does not include the price of the garage doors themselves.



Fig. A-1514—Illustration shows In-Opening Set No. 435-A2-31. Door is hinged to jamb with 311 offset hinges. When 232 or 33 track sets are used 1037 offset hinges are furnished instead of the 311. All Out-Opening sets are furnished with butts at jambs.

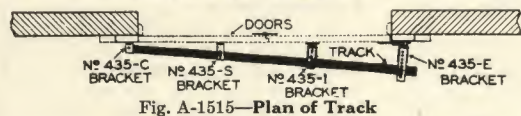
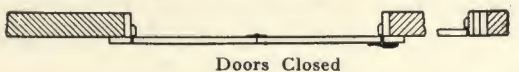


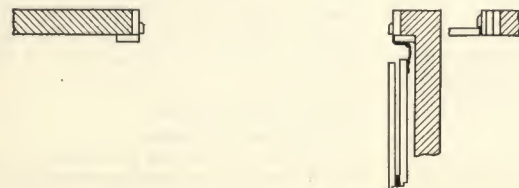
Fig. A-1515—Plan of Track



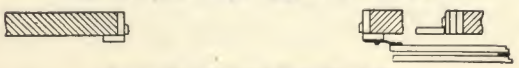
Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1516—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs.

## Slidetite

Patented

R-W No. 435  
For Openings up to 8 feet wide

## 2-Door Sets

Best results are obtained by using doors not more than 3 feet wide. See sets illustrated on succeeding pages. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that One No. 514 Spring Top Locking Bolt and One No. 524 Cane Bottom Locking Bolt are furnished with the set of hardware.

When the letter **B** is used it means that One No. 517 Cremona Locking Bolt (adjustable for doors up to 9 feet high) is furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 2-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on the jamb.

Set 435-A2-31	Weight 49 lbs.	Price.....	\$13.50
Set 435-B2-31	Weight 56 lbs.	Price.....	17.10

For doors opening out with butt hinges on the jamb.

Set O435-A2-31	Weight 46 lbs.	Price.....	13.50
Set O435-B2-31	Weight 53 lbs.	Price.....	17.10

### 2-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on the jamb.

Set 435-A2-232	Weight 98 lbs.	Price.....	\$27.00
Set 435-B2-232	Weight 104 lbs.	Price.....	31.10

For doors opening out with butt hinges on the jamb.

Set O435-A2-232	Weight 80 lbs.	Price.....	21.00
Set O435-B2-232	Weight 86 lbs.	Price.....	25.10

### 2-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on the jamb.

Set 435-A2-33	Weight 118 lbs.	Price.....	\$30.20
Set 435-B2-33	Weight 125 lbs.	Price.....	34.80

For doors opening out with butt hinges on the jamb.

Set O435-A2-33	Weight 100 lbs.	Price.....	24.20
Set O435-B2-33	Weight 107 lbs.	Price.....	28.80

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 6"; 232 Trk. 8 1/4"; 33 Trk. 8 1/4".

Location of Bolt Holes and Bracket Spacing shown on page 108.

If Heavier Doors than above are required use 434 Hardware (Page 244).

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A2-31 for opening 8' wide, 8' high, doors 1 3/4" thick.

### 2-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets

For doors opening in.

Set SS-435-2-31	(For 31 track)	Weight 31 lbs.	Price.....	\$ 9.50
Set SS-435-2-232	(For 232 track)	Weight 70 lbs.	Price.....	22.40
Set SS-435-2-33	(For 33 track)	Weight 95 lbs.	Price.....	24.50

For doors opening out.

Set SS-O435-2-31	(For 31 track)	Weight 28 lbs.	Price.....	\$ 9.50
Set SS-O435-2-232	(For 232 track)	Weight 52 lbs.	Price.....	16.40
Set SS-O435-2-33	(For 33 track)	Weight 77 lbs.	Price.....	18.50

Note—Length of track required shown on page 106.

Discount.....





Fig. A-1517—See paragraph entitled Special Locking Bolts on page 79

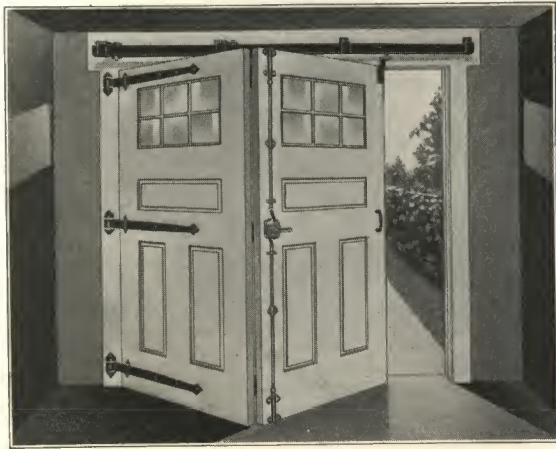


Fig. A-1518—Illustration shows In-Opening Set 1035-B2-31. Door is hinged to jamb with 1035 offset hinges. All sets on this page, either In-Opening or Out-Opening, use 1035 offset hinges at the jamb

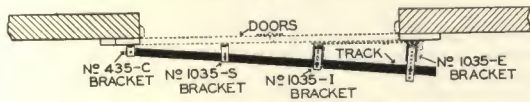


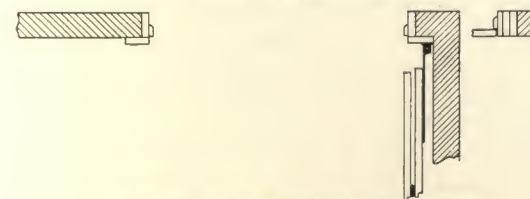
Fig. A-1519—Plan of Track



Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1520—Main Floor Plans

## Slidetite

Patented

R-W No. 1035

For openings up to 8 feet wide

### 2-Door Sets

Best results are obtained by using doors not more than 3 feet wide. See sets illustrated on succeeding pages. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that One No. 514 Spring Top Locking Bolt and One No. 524 Cane Bottom Locking Bolt are furnished with the set of hardware.

When the letter **B** is used it means that One No. 517 Cremona Locking Bolt (adjustable for doors up to 9 feet high) is furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

#### 2-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on the jamb.

Set 1035-A2-31	Weight 73 lbs.	Price.....	\$19.50
Set 1035-B2-31	Weight 80 lbs.	Price.....	23.10

For doors opening out with offset hinges on the jamb.

Set O1035-A2-31	Weight 74 lbs.	Price.....	19.00
Set O1035-B2-31	Weight 81 lbs.	Price.....	23.10

#### 2-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on the jamb.

Set 1035-A2-232	Weight 107 lbs.	Price.....	\$27.00
Set 1035-B2-232	Weight 113 lbs.	Price.....	31.10

For doors opening out with offset hinges on the jamb.

Set O1035-A2-232	Weight 108 lbs.	Price.....	27.00
Set O1035-B2-232	Weight 114 lbs.	Price.....	31.10

#### 2-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on the jamb.

Set 1035-A2-33	Weight 127 lbs.	Price.....	\$30.20
Set 1035-B2-33	Weight 134 lbs.	Price.....	34.80

For doors opening out with offset hinges on the jamb.

Set O1035-A2-33	Weight 128 lbs.	Price.....	30.20
Set O1035-B2-33	Weight 135 lbs.	Price.....	34.80

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 6"; 232 Trk. 8 1/4"; 33 Trk. 8 1/4".

Location of Bolt Holes and Bracket Spacing shown on page 108.

If Heavier Doors than above are required use 434 Hardware (Page 244).

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1035-A2-31 for opening 8' wide, 8' high, doors 1 3/4" thick.

#### 2-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in.

Set SS-1035-2-31	(For 31 track)	Weight 55 lbs.	Price.....	\$15.50
Set SS-1035-2-232	(For 232 track)	Weight 78 lbs.	Price.....	22.40
Set SS-1035-2-33	(For 33 track)	Weight 87 lbs.	Price.....	24.50

For doors opening out.

Set SS-O1035-2-31	(For 31 track)	Weight 56 lbs.	Price.....	15.00
Set SS-O1035-2-232	(For 232 track)	Weight 79 lbs.	Price.....	22.40
Set SS-O1035-2-33	(For 33 track)	Weight 88 lbs.	Price.....	24.50

Note—Length of track required shown on page 107.

Discount.....





Fig. A-1521—Doors Open In—Away from the snow drifts of winter!



Fig. A-1522—Illustration shows In-Opening Set No. 435-B3-31. Single door is hinged to jamb with butts. 311 offset hinges used on door at other jamb. Offset hinges can be furnished for both jambs if 311 is added to the set number. 1037 offset hinges are furnished instead of the 311 hinges, with 232 and 33 track size In-Opening sets. All Out-Opening sets are furnished with butts at jambs.

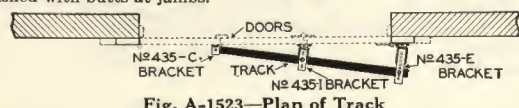
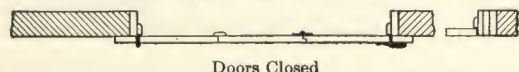
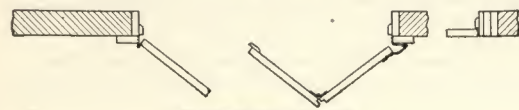


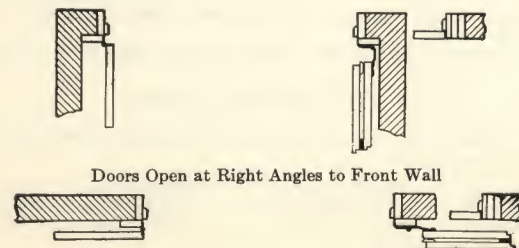
Fig. A-1523—Plan of Track



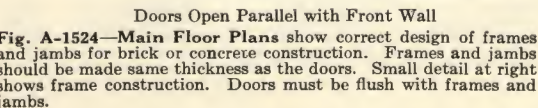
Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1524—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs.

## Slidetite R-W No. 435

Patented

### 3-Door Sets

For Openings up to 9 feet wide

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that One No. 514 Spring Top Locking Bolt and One No. 524 Cane Bottom Locking Bolt are furnished with the set of hardware.

When the letter **B** is used it means that One No. 517 Cremona Locking Bolt (adjustable for doors up to 9 feet high) is furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

These complete sets contain all equipment, bolts, screws, and etc. necessary to erect.

### 3-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with butts on single door.		
Set 435-A3-31.....	Weight 49 lbs.	Price.....\$14.00
Set 435-B3-31.....	Weight 56 lbs.	Price.....17.60
For doors opening in with offset hinges on both jambs.		
Set 435-A3-31-311.....	Weight 52 lbs.	Price.....15.00
Set 435-B3-31-311.....	Weight 59 lbs.	Price.....18.60
For doors opening out with butt hinges on both jambs.		
Set O435-A3-31.....	Weight 47 lbs.	Price.....14.00
Set O435-B3-31.....	Weight 54 lbs.	Price.....17.60

### 3-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with butts on single door.		
Set 435-A3-232.....	Weight 101 lbs.	Price.....\$27.30
Set 435-B3-232.....	Weight 107 lbs.	Price.....31.40
For doors opening out with offset hinges on both jambs.		
Set 435-A3-232-1037.....	Weight 119 lbs.	Price.....32.85
Set 435-B3-232-1037.....	Weight 125 lbs.	Price.....36.95
For doors opening out with butt hinges on both jambs.		
Set O435-A3-232.....	Weight 83 lbs.	Price.....21.30
Set O435-B3-232.....	Weight 89 lbs.	Price.....25.40

### 3-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with butts on single door.		
Set 435-A3-33.....	Weight 121 lbs.	Price.....\$30.50
Set 435-B3-33.....	Weight 128 lbs.	Price.....35.10
For doors opening in with offset hinges on both jambs.		
Set 435-A3-33-1037.....	Weight 139 lbs.	Price.....36.05
Set 435-B3-33-1037.....	Weight 146 lbs.	Price.....40.65
For doors opening out with butt hinges on both jambs.		
Set O435-A3-33.....	Weight 103 lbs.	Price.....24.50
Set O435-B3-33.....	Weight 110 lbs.	Price.....29.10

### SPECIAL NOTICE

Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 6'; 232 Trk. 8 1/4'; 33 Trk. 8 1/2'.

Location of Bolt Holes and Bracket Spacing shown on page 108.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244).

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A3-31 for opening 9' wide, 8' high, doors 1 3/4" thick.

### 3-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in.		
Set SS-435-3-31.....	(For 31 track).....	Weight 34 lbs. Price.....\$10.00
Set SS-435-3-31-311.....	(For 31 track).....	Weight 37 lbs. Price.....11.50
Set SS-435-3-232.....	(For 232 track).....	Weight 78 lbs. Price.....22.70
Set SS-435-3-232-1037.....	(For 232 track).....	Weight 96 lbs. Price.....28.55
Set SS-435-3-33.....	(For 33 track).....	Weight 89 lbs. Price.....24.80
Set SS-435-3-33-1037.....	(For 33 track).....	Weight 107 lbs. Price.....30.35
For doors opening out.		
Set SS-O435-3-31.....	(For 31 track).....	Weight 32 lbs. Price.....\$10.00
Set SS-O435-3-232.....	(For 232 track).....	Weight 60 lbs. Price.....22.70
Set SS-O435-3-33.....	(For 33 track).....	Weight 71 lbs. Price.....18.80

NOTE—Length of track required shown on page 106.

Discount.....



**Slidetite**  
Patented

**R-W No. 1035**  
For Openings up to 9 feet wide



Fig. A-1525—Illustration shows In-Opening Set 1035-A3-232. Single door is hinged to jamb with butts, on other jamb 1035 offset hinges are used. 1035 offset hinges can be furnished for both jambs, for either In-Opening or Out-Opening sets, if 1035 is added to the set number

## Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown at left it means that One No. 514 Spring Top Locking Bolt and One No. 524 Cane Bottom Locking Bolt are furnished with the set of hardware.

When the letter **B** is used it means that One No. 517 Cremona Locking Bolt (adjustable for doors up to 9 feet high) is furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

Also page 472.



Fig. A-1526—Plan of Track



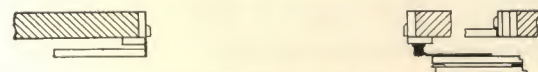
Doors Closed.



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1527—Main Floor Plans

## 3-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

### 3-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with butts on single door.	
Set 1035-A3-31.....	Weight 94 lbs. Price.....\$20.00
Set 1035-B3-31.....	Weight 101 lbs. Price..... 23.60
For doors opening in with offset hinges on both jambs.	
Set 1035-A3-31-1035.....	Weight 121 lbs. Price..... 26.15
Set 1035-B3-31-1035.....	Weight 128 lbs. Price..... 29.75
For doors opening out with butts on single door.	
Set O1035-A3-31.....	Weight 95 lbs. Price..... 20.00
Set O1035-B3-31.....	Weight 102 lbs. Price..... 23.60
For doors opening out with offset hinges on both jambs.	
Set O1035-A3-31-1035.....	Weight 122 lbs. Price..... 26.15
Set O1035-B3-31-1035.....	Weight 129 lbs. Price..... 29.75

### 3-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with butts on single door.	
Set 1035-A3-232.....	Weight 123 lbs. Price.....\$27.30
Set 1035-B3-232.....	Weight 130 lbs. Price..... 31.40
For doors opening in with offset hinges on both jambs.	
Set 1035-A3-232-1035.....	Weight 150 lbs. Price..... 32.85
Set 1035-B3-232-1035.....	Weight 157 lbs. Price..... 36.95
For doors opening out with butts on single door.	
Set O1035-A3-232.....	Weight 124 lbs. Price..... 27.30
Set O1035-B3-232.....	Weight 131 lbs. Price..... 31.40
For doors opening out with offset hinges on both jambs.	
Set O1035-A3-232-1035.....	Weight 151 lbs. Price..... 32.85
Set O1035-B3-232-1035.....	Weight 158 lbs. Price..... 36.95

### 3-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with butts on single door.	
Set 1035-A3-33.....	Weight 143 lbs. Price.....\$30.50
Set 1035-B3-33.....	Weight 150 lbs. Price..... 35.10
For doors opening in with offset hinges on both jambs.	
Set 1035-A3-33-1035.....	Weight 170 lbs. Price..... 36.05
Set 1035-B3-33-1035.....	Weight 177 lbs. Price..... 40.65
For doors opening out with butts on single door.	
Set O1035-A3-33.....	Weight 144 lbs. Price..... 30.50
Set O1035-B3-33.....	Weight 151 lbs. Price..... 35.10
For doors opening out with offset hinges on both jambs.	
Set O1035-A3-33-1035.....	Weight 171 lbs. Price..... 36.05
Set O1035-B3-33-1035.....	Weight 178 lbs. Price..... 40.65

## SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 6"; 232 Trk. 8 1/4"; 33 Trk. 8 1/2".

Location of Bolt Holes and Bracket Spacing shown on page 108.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

Lock for Entrance Door not included in sets. See page 472.

If Heavier Doors than above are required use 434 Hardware (Page 244)

## Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1035-A3-31 for opening 9' wide, 8' high, doors 1 1/4" thick.

### 3-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets

For doors opening in.	
Set SS-1035-3-31.....	(For 31 track).....Weight 79 lbs. Price.....\$16.00
Set SS-1035-3-31-1035.....	(For 31 track).....Weight 106 lbs. Price..... 22.65
Set SS-1035-3-232.....	(For 232 track).....Weight 100 lbs. Price..... 22.70
Set SS-1035-3-232-1035.....	(For 232 track).....Weight 127 lbs. Price..... 28.55
Set SS-1035-3-33.....	(For 33 track).....Weight 120 lbs. Price..... 28.55
Set SS-1035-3-33-1035.....	(For 33 track).....Weight 147 lbs. Price..... 30.35
For doors opening out.	
Set SS-O1035-3-31.....	(For 31 track).....Weight 80 lbs. Price..... 16.00
Set SS-O1035-3-31-1035.....	(For 31 track).....Weight 89 lbs. Price..... 22.65
Set SS-O1035-3-232.....	(For 232 track).....Weight 101 lbs. Price..... 22.70
Set SS-O1035-3-232-1035.....	(For 232 track).....Weight 111 lbs. Price..... 28.55
Set SS-O1035-3-33.....	(For 33 track).....Weight 121 lbs. Price..... 24.80
Set SS-O1035-3-33-1035.....	(For 33 track).....Weight 130 lbs. Price..... 30.35

Note—Length of track required shown on page 107.

Discount.....





Fig. A-1528—Slidetite adapts itself to openings in old barns most admirably.

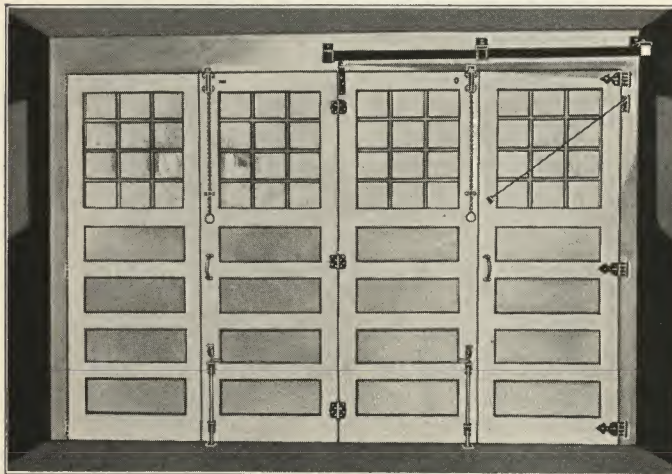


Fig. A-1529—Illustration shows In-Opening Set No. 435-A4-31. Single door is hinged to jamb with butts. 311 offset hinges used on door at other jamb. Offset hinges can be furnished for both jambs if 311 is added to the set number. 1038 offset hinges are furnished instead of the 311 hinges, with 232 and 33 track In-Opening sets. All Out-Opening sets are furnished with butts at jambs.

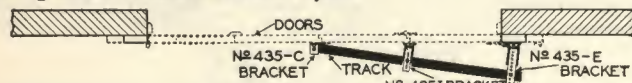
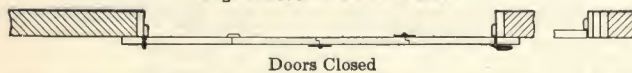


Fig. A-1530—Plan of Track



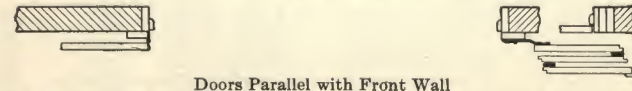
Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Parallel with Front Wall

Fig. A-1531—Main Floor Plans show correct designs of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs.

## Slidetite

Patented

R-W No. 435

For Openings up to 12 feet wide

### 4-Door Sets (Three Doors Folding One Way)

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that two No. 514 Spring Top Locking Bolts and two No. 524 Cane Bottom Locking bolts are furnished with the set of hardware.

When the letter **B** is used it means that two No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 4-Door Sets Using No. 31 Track (Three Doors Folding One Way)

For doors weighing up to 100 lbs. each

For doors opening in with butts on single door.			
Set 435-A4-31.....	Weight 56 lbs.	Price.....	\$16.00
Set 435-B4-31.....	Weight 70 lbs.	Price.....	22.85

For doors opening in with offset hinges on both jambs.

Set 435-A4-31-311.....	Weight 59 lbs.	Price.....	17.50
Set 435-B4-31-311.....	Weight 73 lbs.	Price.....	24.35

For doors opening out with butts on both jambs.

Set O435-A4-31.....	Weight 54 lbs.	Price.....	16.00
Set O435-B4-31.....	Weight 68 lbs.	Price.....	22.85

### 4-Door Sets Using No. 232 Track (Three Doors Folding One Way)

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with butts on single door.			
Set 435-A4-232.....	Weight 108 lbs.	Price.....	\$30.60
Set 435-B4-232.....	Weight 123 lbs.	Price.....	38.80

For doors opening in with offset hinges on both jambs.

Set 435-A4-232-1038.....	Weight 126 lbs.	Price.....	36.15
Set 435-B4-232-1038.....	Weight 141 lbs.	Price.....	44.35

For doors opening out with butts on both jambs.

Set O435-A4-232.....	Weight 90 lbs.	Price.....	24.60
Set O435-B4-232.....	Weight 105 lbs.	Price.....	32.80

### 4-Door Sets Using No. 33 Track (Three Doors Folding One Way)

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with butts on single door.			
Set 435-A4-33.....	Weight 127 lbs.	Price.....	\$34.20
Set 435-B4-33.....	Weight 143 lbs.	Price.....	42.70

For doors opening in with offset hinges on both jambs.

Set 435-A4-33-1038.....	Weight 145 lbs.	Price.....	39.75
Set 435-B4-33-1038.....	Weight 161 lbs.	Price.....	48.25

For doors opening out with butts on both jambs.

Set O435-A4-33.....	Weight 109 lbs.	Price.....	28.20
Set O435-B4-33.....	Weight 125 lbs.	Price.....	36.70

#### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 8 1/4"; 232 Trk. 11 1/4"; 33 Trk. 11 1/2".

Location of Bolt Holes and Bracket Spacing shown on page 108.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244).

#### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A4-31 for opening 12' wide, 8' high, doors 1 3/4" thick.

### 4-Door Short Sets (Three Doors Folding One Way)

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in			
Set SS-435-4-31..... (For 31 track).....	Weight 37 lbs.	Price.....	\$11.00
Set SS-435-4-31-311..... (For 31 track).....	Weight 40 lbs.	Price.....	12.50
Set SS-435-4-232..... (For 232 track).....	Weight 81 lbs.	Price.....	23.00
Set SS-435-4-232-1038..... (For 232 track).....	Weight 99 lbs.	Price.....	28.55
Set SS-435-4-33..... (For 33 track).....	Weight 91 lbs.	Price.....	25.60
Set SS-435-4-33-1038..... (For 33 track).....	Weight 109 lbs.	Price.....	31.15

For doors opening out.

Set SS-O435-4-31..... (For 31 track).....	Weight 35 lbs.	Price.....	11.00
Set SS-O435-4-232..... (For 232 track).....	Weight 63 lbs.	Price.....	17.00
Set SS-O435-4-33..... (For 33 track).....	Weight 73 lbs.	Price.....	19.60

Note—Length of track required shown on page 106.

Discount.....





Fig. A-1532—When closed the doors are weathertight

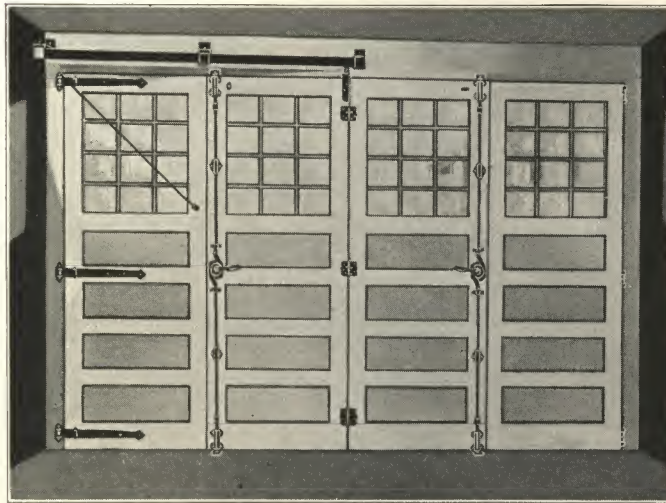
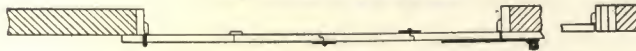


Fig. A-1533—Illustration shows In-Opening Set 1035-B4-31. Single door is hinged to jamb with butts, on other jamb 1035 offset hinges are used. 1035 offset hinges can be furnished for both jambs, for either In-Opening or Out-Opening sets, if 1035 is added to the set number



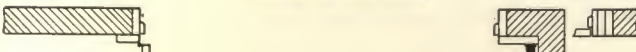
Fig. A-1534—Plan of Track



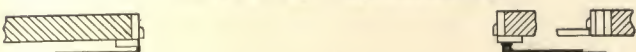
Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Parallel with Front Wall  
Fig. A-1535—Main Floor Plans

## Slidetite

Patented

R-W No. 1035  
For Openings up to 12 feet wide

### 4-Door Sets (Three Doors Folding One way)

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that two No. 514 Spring Top Locking Bolts and two No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that two No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 4-Door Sets Using No. 31 Track (Three Doors Folding One Way)

For doors opening in with butts on single door.

Set 1035-A4-31	Weight 101 lbs.	Price.....	\$22.00
Set 1035-B4-31	Weight 115 lbs.	Price.....	28.85
For doors opening in with offset hinges on both jambs.			
Set 1035-A4-31-1035	Weight 123 lbs.	Price.....	28.15
Set 1035-B4-31-1035	Weight 142 lbs.	Price.....	36.00
For doors opening out with butts on single door.			
Set O1035-A4-31	Weight 102 lbs.	Price.....	22.00
Set O1035-B4-31	Weight 116 lbs.	Price.....	28.85
For doors opening out with offset hinges on both jambs.			
Set O1035-A4-31-1035	Weight 130 lbs.	Price.....	28.15
Set O1035-B4-31-1035	Weight 144 lbs.	Price.....	36.00

### 4-Door Sets Using No. 232 Track (Three Doors Folding One Way)

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with butts on single door.

Set 1035-A4-232	Weight 130 lbs.	Price.....	\$30.60
Set 1035-B4-232	Weight 144 lbs.	Price.....	38.80
For doors opening in with offset hinges on both jambs.			
Set 1035-A4-232-1035	Weight 157 lbs.	Price.....	36.15
Set 1035-B4-232-1035	Weight 171 lbs.	Price.....	44.35
For doors opening out with butts on single door.			
Set O1035-A4-232	Weight 132 lbs.	Price.....	30.60
Set O1035-B4-232	Weight 146 lbs.	Price.....	38.80
For doors opening out with offset hinges on both jambs.			
Set O1035-A4-232-1035	Weight 159 lbs.	Price.....	36.15
Set O1035-B4-232-1035	Weight 173 lbs.	Price.....	44.35

### 4-Door Sets Using No. 33 Track (Three Doors Folding One Way)

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with butts on single door.

Set 1035-A4-33	Weight 149 lbs.	Price.....	\$34.20
Set 1035-B4-33	Weight 163 lbs.	Price.....	42.70
For doors opening in with offset hinges on both jambs.			
Set 1035-A4-33-1035	Weight 176 lbs.	Price.....	39.75
Set 1035-B4-33-1035	Weight 190 lbs.	Price.....	48.25
For doors opening out with butts on single door.			
Set O1035-A4-33	Weight 151 lbs.	Price.....	34.20
Set O1035-B4-33	Weight 165 lbs.	Price.....	42.70
For doors opening out with offset hinges on both jambs.			
Set O1035-A4-33-1035	Weight 178 lbs.	Price.....	39.75
Set O1035-B4-33-1035	Weight 192 lbs.	Price.....	48.25

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 8 1/4"; 232 Trk. 11 1/4"; 33 Trk. 11 1/2".

Location of Bolt Holes and Bracket Spacing shown on page 108.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244).

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1035-A4-31 for opening 12' wide, 8' high, doors 1 3/4" thick.

### 4-Door Short Sets (Three Doors Folding One Way)

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in.

Set SS-1035-4-31	(For 31 track)	Weight 82 lbs.	Price.....	\$17.00
Set SS-1035-4-31-1035	(For 31 track)	Weight 109 lbs.	Price.....	23.15
Set SS-1035-4-232	(For 232 track)	Weight 103 lbs.	Price.....	23.00
Set SS-1035-4-232-1035	(For 232 track)	Weight 130 lbs.	Price.....	28.55
Set SS-1035-4-33	(For 33 track)	Weight 119 lbs.	Price.....	25.60
Set SS-1035-4-33-1035	(For 33 track)	Weight 146 lbs.	Price.....	31.15

For doors opening out.

Set SS-O1035-4-31	(For 31 track)	Weight 83 lbs.	Price.....	17.00
Set SS-O1035-4-31-1035	(For 31 track)	Weight 90 lbs.	Price.....	23.15
Set SS-O1035-4-232	(For 232 track)	Weight 104 lbs.	Price.....	23.00
Set SS-O1035-4-232-1035	(For 232 track)	Weight 117 lbs.	Price.....	28.55
Set SS-O1035-4-33	(For 33 track)	Weight 120 lbs.	Price.....	25.60
Set SS-O1035-4-33-1035	(For 33 track)	Weight 120 lbs.	Price.....	31.15

Note—Length of track required shown on page 107.

Discount.....



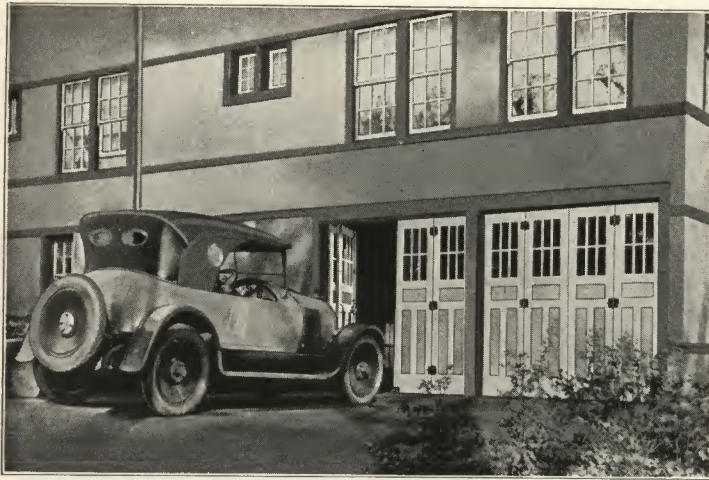


Fig. A-1536—Slidetite doors lend character to a garage. Being narrow they allow narrow glass panels to be used and an individual door construction that always has a splendid appearance



Fig A-1537—Illustration shows In-Opening Set No. 435-B4 1/2-31. Doors are hinged to jambs with 311 offset hinges. When 232 or 33 track sets are used 1037 offset hinges are furnished instead of the 311. All Out-Opening sets are furnished with butts at both jambs.

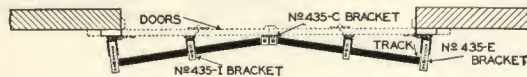
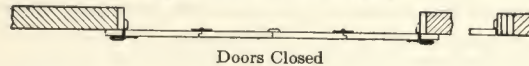


Fig. A-1538—Plan of Tracks



Doors Open and at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1539—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs.

## Slidetite

Patented

R-W No. 435

For Openings up to 12 feet wide

### 4-Door Sets (Two Doors Folding Each Way)

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that two No. 514 Spring Top Locking Bolts and two No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that two No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 4-Door Sets Using No. 31 Track (Two Doors Folding Each Way)

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A4 1/2-31	Weight 84 lbs.	Price	\$21.00
Set 435-B4 1/2-31	Weight 97 lbs.	Price	27.20

For doors opening out with butt hinges on both jambs.

Set O435-A4 1/2-31	Weight 80 lbs.	Price	21.00
Set O435-B4 1/2-31	Weight 93 lbs.	Price	27.20

### 4-Door Sets Using No. 232 Track (Two Doors Folding Each Way)

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A4 1/2-232	Weight 177 lbs.	Price	\$51.50
Set 435-B4 1/2-232	Weight 190 lbs.	Price	59.70

For doors opening out with butt hinges on both jambs.

Set O435-A4 1/2-232	Weight 141 lbs.	Price	39.50
Set O435-B4 1/2-232	Weight 154 lbs.	Price	47.70

### 4-Door Sets Using No. 33 Track (Two Doors Folding Each Way)

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A4 1/2-33	Weight 200 lbs.	Price	\$58.00
Set 435-B4 1/2-33	Weight 212 lbs.	Price	66.20

For doors opening out with butt hinges on both jambs.

Set O435-A4 1/2-33	Weight 164 lbs.	Price	46.00
Set O435-B4 1/2-33	Weight 176 lbs.	Price	54.20

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 6'; 232 Trk. 8 1/4'; 33 Trk. 8 1/2'.

Location of Bolt Holes and Bracket Spacing shown on page 108.

If Heavier Doors than above are required use 434 Hardware (Page 244).

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A4 1/2-31 for opening 12' wide, 8' high, doors 1 1/4" thick.

### 4-Door Short Sets (Two Doors Folding Each Way)

Track, Lock and Locking Bolts are omitted from Short Sets

For doors opening in.

Set SS-435-4 1/2-31	(For 31 track)	Weight 54 lbs.	Price	\$15.00
Set SS-435-4 1/2-232	(For 232 track)	Weight 131 lbs.	Price	42.50
Set SS-435-4 1/2-33	(For 33 track)	Weight 136 lbs.	Price	47.00

For doors opening out.

Set SS-O435-4 1/2-31	(For 31 track)	Weight 50 lbs.	Price	15.00
Set SS-O435-4 1/2-232	(For 232 track)	Weight 95 lbs.	Price	30.50
Set SS-O435-4 1/2-33	(For 33 track)	Weight 100 lbs.	Price	35.00

Note—Length of track required shown on page 106.

Discount.....





Fig. A-1540—Where the service is frequent and severe 1035 Slidetite performs regularly and efficiently



Fig. A1541—Illustration shows In-Opening Sets No. 1035-A4 1/2-31. Doors are hinged to jambs with 1035 offset hinges. All sets on this page, either In-Opening or Out-Opening, use 1035 offset hinges at the jambs.

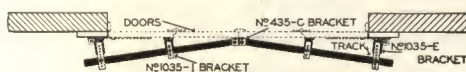
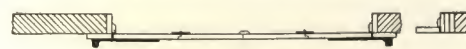


Fig. A-1542—Plan of Tracks



Doors Closed



Doors Partly Opened



Doors Open and at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1543—Main Floor Plans

## Slidetite

Patented

**R-W No. 1035**  
For Openings up to 12 feet wide

### 4-Door Sets (Two Doors Folding Each Way)

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that two No. 514 Spring Top Locking Bolts and two No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that two No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 4-Door Sets Using No. 31 Track (Two Doors Folding Each Way)

For doors weighing up to 100 lbs. each

Set 1035-A4 1/2-31.....	Weight 129 lbs.	Price.....	\$33.00
Set 1035-B4 1/2-31.....	Weight 142 lbs.	Price.....	39.20

For doors opening out with offset hinges on both jambs.

Set O1035-A4 1/2-31.....	Weight 131 lbs.	Price.....	33.00
Set O1035-B4 1/2-31.....	Weight 144 lbs.	Price.....	39.20

### 4-Door Sets Using No. 232 Track (Two Doors Folding Each Way)

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A4 1/2-232.....	Weight 171 lbs.	Price.....	\$51.50
Set 1035-B4 1/2-232.....	Weight 184 lbs.	Price.....	59.70

For doors opening out with offset hinges on both jambs.

Set O1035-A4 1/2-232.....	Weight 173 lbs.	Price.....	51.50
Set O1035-B4 1/2-232.....	Weight 186 lbs.	Price.....	59.70

### 4-Door Sets Using No. 33 Track (Two Doors Folding Each Way)

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A4 1/2-33.....	Weight 198 lbs.	Price.....	\$58.00
Set 1035-B4 1/2-33.....	Weight 210 lbs.	Price.....	66.20

For doors opening out with offset hinges on both jambs.

Set O1035-A4 1/2-33.....	Weight 200 lbs.	Price.....	58.00
Set O1035-B4 1/2-33.....	Weight 212 lbs.	Price.....	66.20

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 6'; 232 Trk. 8 1/4'; 33 Trk. 8 1/2'.

Location of Bolt Holes and Bracket Spacing shown on page 108.

If Heavier Doors than above are required use 434 Hardware (Page 244)

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1035-A4 1/2-31 for opening 12' wide, 8' high, doors 1 1/4" thick.

### 4-Door Short Sets (Two Doors Folding Each Way)

Track, Lock and Locking Bolts are omitted from Short Sets

For doors opening in.

Set SS-1035-4 1/2-31.....	(For 31 track).....	Weight 99 lbs.	Price.....	\$25.00
Set SS-1035-4 1/2-232.....	(For 232 track).....	Weight 125 lbs.	Price.....	42.50
Set SS-1035-4 1/2-33.....	(For 33 track).....	Weight 134 lbs.	Price.....	47.00

For doors opening out.

Set SS-O1035-4 1/2-31.....	(For 31 track).....	Weight 101 lbs.	Price.....	25.00
Set SS-O1035-4 1/2-232.....	(For 232 track).....	Weight 127 lbs.	Price.....	42.50
Set SS-O1035-4 1/2-33.....	(For 33 track).....	Weight 136 lbs.	Price.....	47.00

Note—Length of track required shown on page 107.

Discount.....





Fig. A-1544—A child can easily operate Slidetite doors



Fig. A-1545—Illustration shows In-Opening Set No. 435-A5-31. Doors are hinged to jambs with 311 offset hinges. When 232 or 33 track sets are used 1038 offset hinges are furnished instead of the 311. All Out-Opening sets are furnished with butts at jambs.

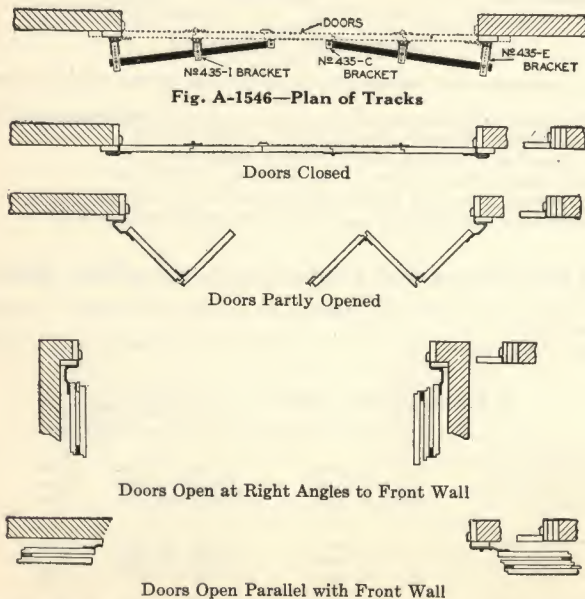


Fig. A-1546—Plan of Tracks

Fig. A-1547—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs.

## Slidetite

Patented

R-W No. 435  
For Openings up to 15 feet wide

### 5-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that two No. 514 Spring Top Locking Bolts and two No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that two No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

#### 5-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A5-31	Weight 90 lbs.	Price.....	\$24.50
Set 435-B5-31	Weight 103 lbs.	Price.....	30.20

For doors opening out with butt hinges on both jambs.

Set O435-A5-31	Weight 86 lbs.	Price.....	24.50
Set O435-B5-31	Weight 99 lbs.	Price.....	30.20

#### 5-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A5-232	Weight 187 lbs.	Price.....	\$54.50
Set 435-B5-232	Weight 202 lbs.	Price.....	63.70

For doors opening out with butt hinges on both jambs.

Set O435-A5-232	Weight 151 lbs.	Price.....	42.50
Set O435-B5-232	Weight 166 lbs.	Price.....	51.70

#### 5-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A5-33	Weight 210 lbs.	Price.....	\$61.00
Set 435-B5-33	Weight 228 lbs.	Price.....	70.20

For doors opening out with butt hinges on both jambs.

Set O435-A5-33	Weight 174 lbs.	Price.....	49.00
Set O435-B5-33	Weight 192 lbs.	Price.....	58.20

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 8 1/4"; 232 Trk. 11 1/4"; 33 Trk. 11 1/2".

Location of Bolt Holes and Bracket Spacing shown on page 108.

Look for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244)

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A5-31 for opening 15' wide, 8' high, doors 1 1/4" thick.

#### 5-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in.

Set SS-435-5-31	(For 31 track)	Weight 60 lbs.	Price.....	\$17.00
Set SS-435-5-232	(For 232 track)	Weight 141 lbs.	Price.....	45.50
Set SS-435-5-33	(For 33 track)	Weight 146 lbs.	Price.....	51.60

For doors opening out.

Set SS-O435-5-31	(For 31 track)	Weight 56 lbs.	Price.....	17.00
Set SS-O435-5-232	(For 232 track)	Weight 105 lbs.	Price.....	33.50
Set SS-O435-5-33	(For 33 track)	Weight 110 lbs.	Price.....	39.60

Note—Length of track required shown on page 106.

Discount.....





**Slidetite**  
Patented

**R-W No. 1035**  
For Openings up to 15 feet wide

## 5-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that two No. 514 Spring Top Locking Bolts and two No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that two No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 5-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

Set 1035-A5-31	For doors opening in with offset hinges on both jambs.	Weight 135 lbs.	Price.....	\$36.50
Set 1035-B5-31	For doors opening out with offset hinges on both jambs.	Weight 148 lbs.	Price.....	42.20

Set O1035-A5-31	For doors opening in with offset hinges on both jambs.	Weight 137 lbs.	Price.....	36.50
Set O1035-B5-31	For doors opening out with offset hinges on both jambs.	Weight 150 lbs.	Price.....	42.20

### 5-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

Set 1035-A5-232	For doors opening in with offset hinges on both jambs.	Weight 180 lbs.	Price.....	\$54.50
Set 1035-B5-232	For doors opening out with offset hinges on both jambs.	Weight 192 lbs.	Price.....	63.70

Set O1035-A5-232	For doors opening in with offset hinges on both jambs.	Weight 182 lbs.	Price.....	54.50
Set O1035-B5-232	For doors opening out with offset hinges on both jambs.	Weight 194 lbs.	Price.....	63.70

### 5-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

Set 1035-A5-33	For doors opening in with offset hinges on both jambs.	Weight 208 lbs.	Price.....	\$61.00
Set 1035-B5-33	For doors opening out with offset hinges on both jambs.	Weight 226 lbs.	Price.....	70.20

Set O1035-A5-33	For doors opening in with offset hinges on both jambs.	Weight 210 lbs.	Price.....	61.00
Set O1035-B5-33	For doors opening out with offset hinges on both jambs.	Weight 228 lbs.	Price.....	70.20

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 8 1/4"; 232 Trk. 11 1/4"; 33 Trk. 11 1/2".

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

Location of Bolt Holes and Bracket Spacing shown on page 108.

If Heavier Doors than above are required use 434 Hardware (Page 244).

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1035-A5-31 for opening 15' wide, 8' high, doors 1 3/4" thick.

### 5-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets.

Set SS-1035-5-31	For doors opening in.	(For 31 track)	Weight 105 lbs.	Price.....	\$29.00
Set SS-1035-5-232	For doors opening in.	(For 232 track)	Weight 136 lbs.	Price.....	45.50
Set SS-1035-5-33	For doors opening in.	(For 33 track)	Weight 144 lbs.	Price.....	51.60

Set SS-O1035-5-31	For doors opening out.	(For 31 track)	Weight 107 lbs.	Price.....	29.00
Set SS-O1035-5-232	For doors opening out.	(For 232 track)	Weight 138 lbs.	Price.....	45.50
Set SS-O1035-5-33	For doors opening out.	(For 33 track)	Weight 146 lbs.	Price.....	51.60

Note—Length of track required shown on page 107.

Discount.....

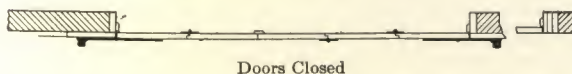
Fig. A-1548—The finer the home, the more reason for insisting upon 1035 Slidetite for the garage



Fig. A-1549—Illustration shows In-Opening Set 1035-B5-31. Doors are hinged to jambs with 1035 offset hinges. All sets on this page, either In-Opening or Out-Opening, use 1035 offset hinges at the jambs



Fig. A-1550—Plan of Tracks



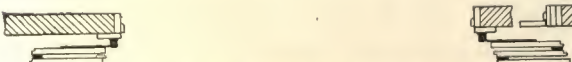
Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1551—Main Floor Plans





Fig. A-1552—Slidetite equipped doors present a perfectly weathertight face to the elements when closed



Fig. A-1553—Illustration shows In-Opening Set No. 435-A6-31. Doors are hinged to jambs with 311 offset hinges. When 232 or 33 track sets are used 1038 offset hinges are furnished instead of the 311. All Out-Opening sets are furnished with butts at jambs.

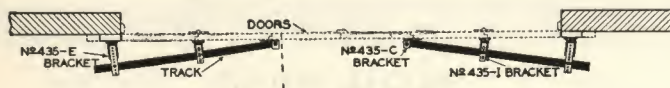
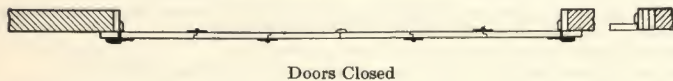


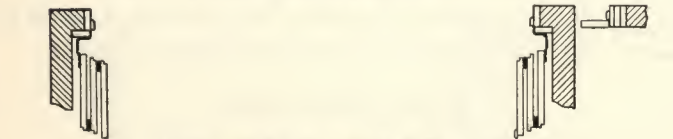
Fig. A-1554—Plan of Tracks



Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1555—Main Floor Plans show correct designs of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs.

## Slidetite

Patented

R-W No. 435  
For Openings up to 18 feet wide

### 6-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that three No. 514 Spring Top Locking Bolts and three No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that three No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

#### 6-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A6-31	Weight 95 lbs.	Price.....	\$28.00
Set 435-B6-31	Weight 113 lbs.	Price.....	37.80

For doors opening out with butt hinges on both jambs.

Set O435-A6-31	Weight 91 lbs.	Price.....	28.00
Set O435-B6-31	Weight 109 lbs.	Price.....	37.80

#### 6-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A6-232	Weight 192 lbs.	Price.....	\$55.50
Set 435-B6-232	Weight 210 lbs.	Price.....	68.30

For doors opening out with butt hinges on both jambs.

Set O435-A6-232	Weight 156 lbs.	Price.....	43.50
Set O435-B6-232	Weight 174 lbs.	Price.....	56.30

#### 6-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A6-33	Weight 212 lbs.	Price.....	\$62.00
Set 435-B6-33	Weight 234 lbs.	Price.....	74.80

For doors opening out with butt hinges on both jambs.

Set O435-A6-33	Weight 176 lbs.	Price.....	50.00
Set O435-B6-33	Weight 198 lbs.	Price.....	62.80

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 8 1/4"; 232 Trk. 11 1/4"; 33 Trk. 11 1/2".

Location of Bolt Holes and Bracket Spacing shown on page 108.

Lock for Entrance Door not included in set. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244).

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A6-31 for opening 18' wide, 8' high, doors 1 1/4" thick.

#### 6-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets

For doors opening in.

Set SS-435-6-31	(For 31 track)	Weight 61 lbs.	Price.....	\$18.00
Set SS-435-6-232	(For 232 track)	Weight 142 lbs.	Price.....	46.50
Set SS-435-6-33	(For 33 track)	Weight 144 lbs.	Price.....	52.60

For doors opening out.

Set SS-O435-6-31	(For 31 track)	Weight 57 lbs.	Price.....	18.00
Set SS-O435-6-232	(For 232 track)	Weight 106 lbs.	Price.....	34.50
Set SS-O435-6-33	(For 33 track)	Weight 108 lbs.	Price.....	40.60

Note—Length of track required shown on page 106.

Discount.....





Fig. A-1556—Slidetite equipped doors work right and stay right



Fig. A-1557—Illustration shows In-Opening Set 1035-B6-31. Doors are hinged to the jambs with 1035 offset hinges. All sets on this page, either In-Opening or Out Opening, use 1035 offset hinges at the jambs

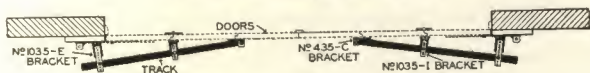
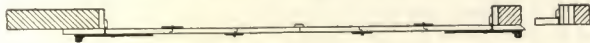


Fig. A-1558—Plan of Tracks



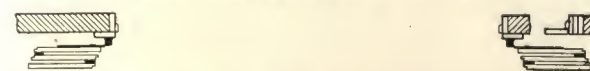
Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1559—Main Floor Plans

## Slidetite

Patented

R-W No. 1035

For Openings up to 18 feet wide

### 6-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that three No. 514 Spring Top Locking Bolts and three No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that three No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) is furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

#### 6-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A6-31	Weight 140 lbs.	Price.....	\$40.00
Set 1035-B6-31	Weight 161 lbs.	Price.....	49.80

For doors opening out with offset hinges on both jambs.

Set O1035-A6-31	Weight 142 lbs.	Price.....	40.00
Set O1035-B6-31	Weight 163 lbs.	Price.....	49.80

#### 6-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A6-232	Weight 180 lbs.	Price.....	\$55.50
Set 1035-B6-232	Weight 208 lbs.	Price.....	68.30

For doors opening out with offset hinges on both jambs.

Set O1035-A6-232	Weight 182 lbs.	Price.....	55.00
Set O1035-B6-232	Weight 210 lbs.	Price.....	68.30

#### 6-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A6-33	Weight 217 lbs.	Price.....	\$62.00
Set 1035-B6-33	Weight 238 lbs.	Price.....	74.80

For doors opening out with offset hinges on both jambs.

Set O1035-A6-33	Weight 219 lbs.	Price.....	62.00
Set O1035-B6-33	Weight 240 lbs.	Price.....	74.80

#### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for: 31 Trk. 8 1/4"; 232 Trk. 11 1/4"; 33 Trk. 11 1/2".

Location of Bolt Holes and Bracket Spacing shown on page 108.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244)

#### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1035-A6-31 for opening 18' wide, 8' high, doors 1 1/4" thick.

#### 6-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets

For doors opening in.

Set SS-1035-6-31	(For 31 track)	Weight 106 lbs.	Price.....	\$30.00
Set SS-1035-6-232	(For 232 track)	Weight 130 lbs.	Price.....	46.50
Set SS-1035-6-33	(For 33 track)	Weight 147 lbs.	Price.....	52.60

For doors opening out.

Set SS-O1035-6-31	(For 31 track)	Weight 108 lbs.	Price.....	30.00
Set SS-O1035-6-232	(For 232 track)	Weight 132 lbs.	Price.....	46.50
Set SS-O1035-6-33	(For 33 track)	Weight 149 lbs.	Price.....	52.60

Note—Length of track required shown on page 107.

Discount.....





Fig. A-1560—The doors being narrow present little surface to the wind, hence they may be opened by a child even in the face of a strong head-on wind.

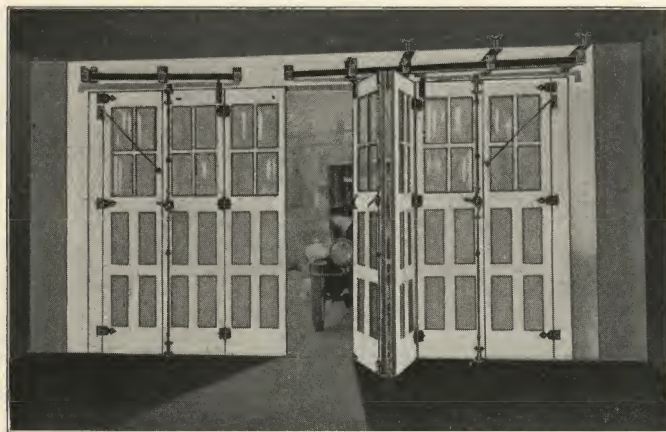


Fig. A-1561—Illustration shows In-Opening Set No. 435-B7-31. Doors are hinged to jambs with 311 offset hinges. When 232 or 33 track sets are used 1038 offset hinges are furnished instead of the 311. A Out-Opening sets are furnished with butts at jambs.

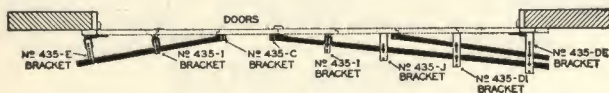
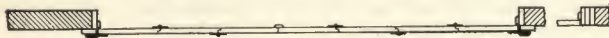


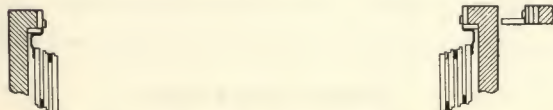
Fig. A-1562—Plan of Tracks



Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1563—Main Floor Plans show correct designs of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs.

## Slidetite

Patented

### R-W No. 435

For Openings up to 21 feet wide

## 7-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that three No. 514 Spring Top Locking Bolts and three No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that three No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 7-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A7-31	Weight 170 lbs.	Price.....	\$51.00
Set 435-B7-31	Weight 191 lbs.	Price.....	63.80

For doors opening out with butt hinges on both jambs.

Set O435-A7-31	Weight 166 lbs.	Price.....	51.00
Set O435-B7-31	Weight 187 lbs.	Price.....	63.80

### 7-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A7-232	Weight 293 lbs.	Price.....	\$84.00
Set 435-B7-232	Weight 314 lbs.	Price.....	96.80

For doors opening out with butt hinges on both jambs.

Set O435-A7-232	Weight 257 lbs.	Price.....	72.00
Set O435-B7-232	Weight 278 lbs.	Price.....	84.80

### 7-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A7-33	Weight 331 lbs.	Price.....	\$ 96.00
Set 435-B7-33	Weight 352 lbs.	Price.....	108.80

For doors opening out with butt hinges on both jambs.

Set O435-A7-33	Weight 295 lbs.	Price.....	84.00
Set O435-B7-33	Weight 316 lbs.	Price.....	96.80

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 105.

Headroom Required for 31 Trk. 9'; 232 Trk. 11'; 33 Trk. 11½'.

Location of Bolt Holes and Bracket Spacing shown on page 109.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244)

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A7-31 for opening 21' wide, 8' high, doors 1¾" thick.

### 7-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in.

Set SS 435-7-31	(For 31 track)	Weight 113 lbs.	Price.....	\$37.00
Set SS 435-7-232	(For 232 track)	Weight 204 lbs.	Price.....	62.00
Set SS 435-7-33	(For 33 track)	Weight 270 lbs.	Price.....	68.00

For doors opening out.

Set SS O435-7-31	(For 31 track)	Weight 109 lbs.	Price.....	37.00
Set SS O435-7-232	(For 232 track)	Weight 168 lbs.	Price.....	50.00
Set SS O435-7-33	(For 33 track)	Weight 171 lbs.	Price.....	56.00

Note—Length of track required shown on page 106.

Discount.....





Fig. A-1564—The better class of community garages throughout the length and breadth of the land are equipped with No. 1035 Slidetite



Fig. A-1565—Illustration shows In-Opening Set 1035-A7-31. Doors are hinged to jambs with 1035 offset hinges. All sets on this page, either In-Opening or Out-Opening, use 1035 offset hinges at the jambs



Fig. A-1566—Plan of Tracks



Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1567—Main Floor Plans show correct designs of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs

## Slidetite

Patented

R-W No. 1035

For Openings up to 21 feet wide

### 7-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that three No. 514 Spring Top Locking Bolts and three No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that three No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

#### 7-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A7-31	Weight 215 lbs.	Price.....	\$ 63.00
Set 1035-B7-31	Weight 235 lbs.	Price.....	75.80

For doors opening out with offset hinges on both jambs.

Set O1035-A7-31	Weight 217 lbs.	Price.....	63.00
Set O1035-B7-31	Weight 237 lbs.	Price.....	75.80

#### 7-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A7-232	Weight 282 lbs.	Price.....	\$ 84.00
Set 1035-B7-232	Weight 302 lbs.	Price.....	96.80

For doors opening out with offset hinges on both jambs.

Set O1035-A7-232	Weight 285 lbs.	Price.....	84.00
Set O1035-B7-232	Weight 305 lbs.	Price.....	96.80

#### 7-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A7-33	Weight 350 lbs.	Price.....	\$ 96.00
Set 1035-B7-33	Weight 368 lbs.	Price.....	108.80

For doors opening out with offset hinges on both jambs.

Set O1035-A7-33	Weight 353 lbs.	Price.....	96.00
Set O1035-B7-33	Weight 371 lbs.	Price.....	108.80

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 105.

Headroom Required for: 31 Trk. 9"; 232 Trk. 11"; 33 Trk. 11 1/2".

Location of Bolt Holes and Bracket Spacing shown on page 109.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244).

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of doors.

Example—2 sets No. 1035-A7-31 for opening 21' wide, 8' high, doors 1 1/4" thick.

### 7-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in.

Set SS-1035-7-31	(For 31 track)	Weight 158 lbs.	Price.....	\$49.00
Set SS-1035-7-232	(For 232 track)	Weight 193 lbs.	Price.....	62.00
Set SS-1035-7-33	(For 33 track)	Weight 226 lbs.	Price.....	68.00

For doors opening out.

Set SS-O1035-7-31	(For 31 track)	Weight 161 lbs.	Price.....	49.00
Set SS-O1035-7-232	(For 232 track)	Weight 196 lbs.	Price.....	62.00
Set SS-O1035-7-33	(For 33 track)	Weight 229 lbs.	Price.....	68.00

Note—Length of track required shown on page 107.

Discount.....



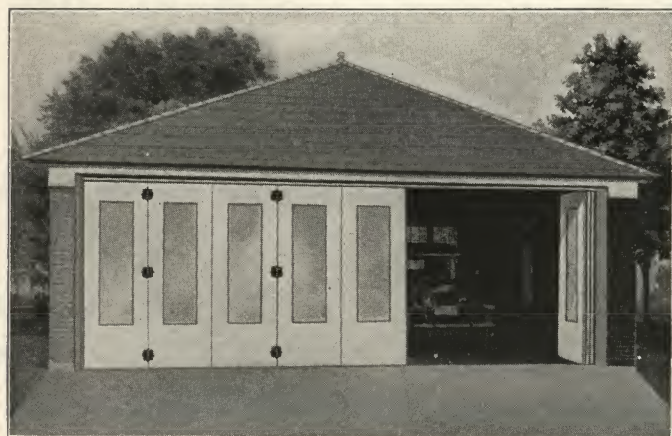


Fig A-1568—Slidetite doors quickly and securely close any opening.

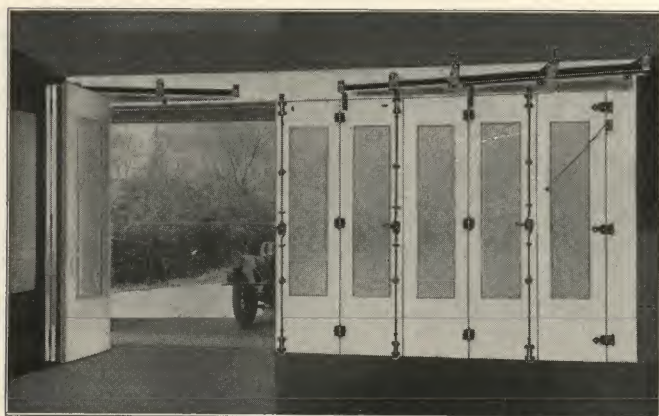


Fig. A-1569—Illustration shows In-Opening Set No. 435-B8-31. Doors are hinged to jambs with 311 offset hinges. When 232 or 33 track sets are used 1038 offset hinges are furnished instead of the 311. All Out-Opening sets are furnished with butts at jambs.



Fig. A-1570—Plan of Tracks



Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1571—Main Floor Plans—show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs.

## Slidetite

Patented

R-W No. 435

For Openings up to 24 feet wide

### 8-Door Sets (Five Doors Folding One Way)

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that four No. 514 Spring Top Locking Bolts and four No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that four No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 8-Door Sets Using No. 31 Track (Five Doors Folding One Way)

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A8-31	Weight 177 lbs.	Price.....	\$52.30
Set 435-B8-31	Weight 206 lbs.	Price.....	69.40

For doors opening out with butt hinges on both jambs.

Set O435-A8-31	Weight 173 lbs.	Price.....	52.30
Set O435-B8-31	Weight 202 lbs.	Price.....	69.40

### 8-Door Sets Using No. 232 Track (Five Doors Folding One Way)

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A8-232	Weight 309 lbs.	Price.....	\$ 85.30
Set 435-B8-232	Weight 338 lbs.	Price.....	102.40

For doors opening out with butt hinges on both jambs.

Set O435-A8-232	Weight 273 lbs.	Price.....	73.30
Set O435-B8-232	Weight 302 lbs.	Price.....	90.40

### 8-Door Sets Using No. 33 Track (Five Doors Folding One Way)

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A8-33	Weight 344 lbs.	Price.....	\$97.30
Set 435-B8-33	Weight 374 lbs.	Price.....	114.40

For doors opening out with butt hinges on both jambs.

Set O435-A8-33	Weight 308 lbs.	Price.....	85.30
Set O435-B8-33	Weight 338 lbs.	Price.....	102.40

#### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 105.

Headroom Required for 31 Trk. 9'; 232 Trk. 11'; 33 Trk. 11 1/4'.

Location of Bolt Holes and Bracket Spacing shown on page 109.

Lock for Entrance Door not included in sets. See pages 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244).

#### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A8-31 for opening 24' wide, 8' high, doors 1 3/4" thick.

### 8-Door Short Sets (Five Doors Folding One Way)

Track, Lock and Locking Bolts are omitted from Short Sets

For doors opening in.

Set SS-435-8-31	(For 31 track)	Weight 108 lbs.	Price.....	\$37.00
Set SS-435-8-232	(For 232 track)	Weight 212 lbs.	Price.....	62.00
Set SS-435-8-33	(For 33 track)	Weight 239 lbs.	Price.....	68.00

For doors opening out.

Set SS-O435-8-31	(For 31 track)	Weight 104 lbs.	Price.....	37.00
Set SS-O435-8-232	(For 232 track)	Weight 176 lbs.	Price.....	50.00
Set SS-O435-8-33	(For 33 track)	Weight 203 lbs.	Price.....	56.00

Note—Length of track required shown on page 106.

Discount.....



## Slidetite

Patented

### R-W No. 1035

For Openings up to 24 feet wide

## 8-Door Sets (Five Doors Folding One Way)

Best results are obtained by using doors not more than 3 feet wide. Wider door require additional track and brackets. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that four No. 514 Spring Top Locking Bolts and four No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that four No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 8-Door Sets Using No. 31 Track (Five Doors Folding One Way)

For doors weighing up to 100 lbs. each.

For doors opening in with offset hinges on both jambs.

Set 1035-A8-31	Weight 222 lbs.	Price.....	\$ 64.30
Set 1035-B8-31	Weight 250 lbs.	Price.....	81.40

For doors opening out with offset hinges on both jambs.

Set O1035-A8-31	Weight 225 lbs.	Price.....	64.30
Set O1035-B8-31	Weight 253 lbs.	Price.....	81.40

### 8-Door Sets Using No. 232 Track (Five Doors Folding One Way)

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A8-232	Weight 313 lbs.	Price.....	\$ 85.30
Set 1035-B8-232	Weight 341 lbs.	Price.....	102.40

For doors opening out with offset hinges on both jambs.

Set O1035-A8-232	Weight 316 lbs.	Price.....	85.30
Set O1035-B8-232	Weight 344 lbs.	Price.....	102.40

### 8-Door Sets Using No. 33 Track (Five Doors Folding One Way)

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A8-33	Weight 383 lbs.	Price.....	\$ 97.30
Set 1035-B8-33	Weight 411 lbs.	Price.....	114.40

For doors opening out with offset hinges on both jambs.

Set O1035-A8-33	Weight 386 lbs.	Price.....	97.30
Set O1035-B8-33	Weight 414 lbs.	Price.....	114.40

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 105.

Headroom Required for 31 Trk. 9'; 232 Trk. 11'; 33 Trk. 11 1/4'.

Location of Bolt Holes and Bracket Spacing shown on page 109.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244)

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1035-A8-31 for opening 24' wide, 8' high, doors 1 1/4" thick.

### 8-Door Short Sets (Five Doors Folding One Way)

Track, Lock and Locking Bolts are omitted from Short Sets

For doors opening in.

Set SS-1035-8-31	(For 31 track)	Weight 161 lbs.	Price.....	\$49.00
Set SS-1035-8-232	(For 232 track)	Weight 220 lbs.	Price.....	62.00
Set SS-1035-8-33	(For 33 track)	Weight 255 lbs.	Price.....	68.00

For doors opening out.

Set SS-O1035-8-31	(For 31 track)	Weight 164 lbs.	Price.....	49.00
Set SS-O1035-8-232	(For 232 track)	Weight 223 lbs.	Price.....	62.00
Set SS-O1035-8-33	(For 33 track)	Weight 258 lbs.	Price.....	68.00

Note—Length of track required shown on page 107.

Discount.....

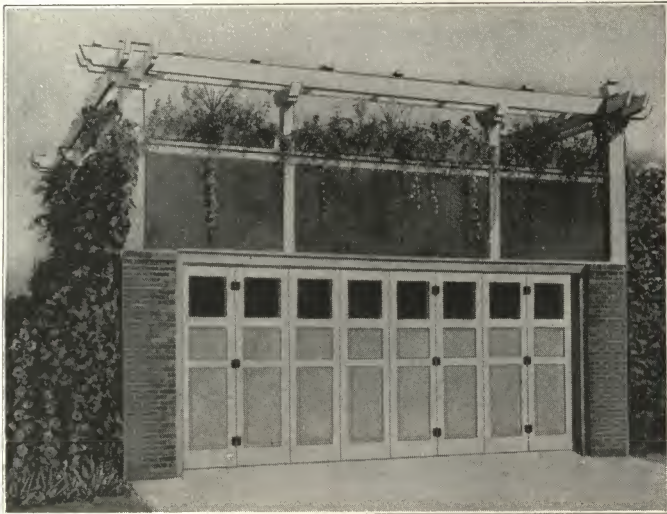


Fig. A-1572—Wide openings are possible with Slidetite—no posts in the opening are required

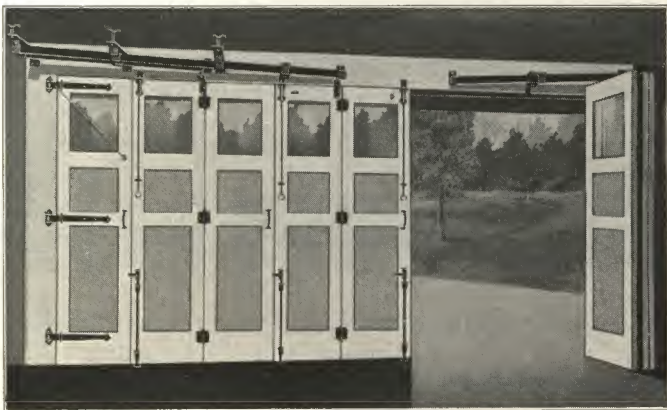


Fig. A-1573—Illustration shows In-Opening Set 1035-A8-31. Doors are hinged to the jambs with 1035 offset hinges. All sets on this page, either In-Opening or Out-Opening, use 1035 offset hinges at the jamb



Fig. A-1574—Plan of Tracks



Doors Closed



Doors Partly Open



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. 1575—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs



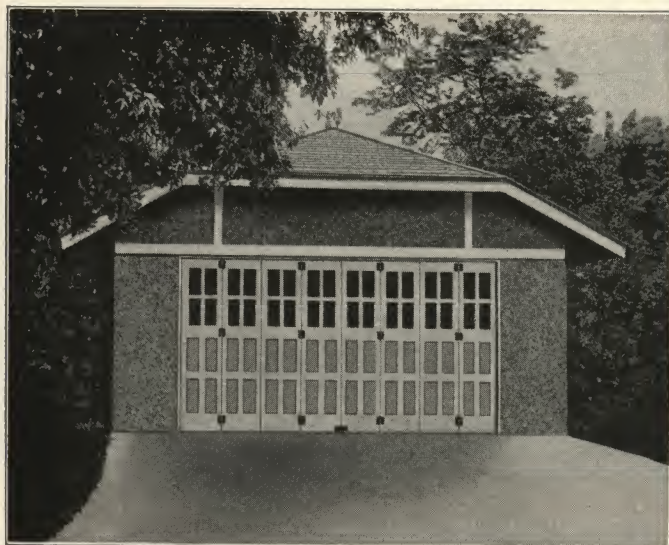


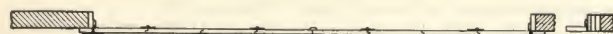
Fig. A-1576—Doors operate easily because the weight of the series of doors is not only carried by the hinges at the jambs but also by easy rolling hangers which run in the overhead track.



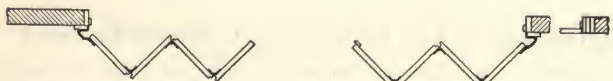
Fig. A-1577—Illustration shows In-Opening Set No. 435-A8½-31. Doors are hinged to jambs with 311 offset hinges. When 232 or 33 track sets are used 1038 offset hinges are furnished instead of the 811. All Out-Opening sets are furnished with butts at jambs.



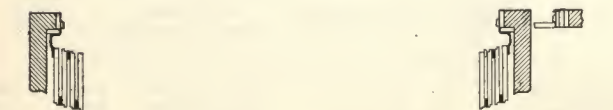
Fig. A-1578—Plan of Tracks



Doors Closed



Doors Partly Opened



Doors Open and at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1579—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs.

## Slidetite

Patented

### R-W No. 435

For Openings up to 24 feet wide

## 8-Door Sets (Four Doors Folding Each Way)

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that four No. 514 Spring Top Locking Bolts and four No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that four No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 8-Door Sets Using No. 31 Track (Four Doors Folding Each Way)

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A8½-31	Weight 234 lbs.	Price	\$ 75.00
Set 435-B8½-31	Weight 262 lbs.	Price	90.40

For doors opening out with butt hinges on both jambs.

Set 0435-A8½-31	Weight 230 lbs.	Price	75.00
Set 0435-B8½-31	Weight 258 lbs.	Price	90.40

### 8-Door Sets Using No. 232 Track (Four Doors Folding Each Way)

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A8½-232	Weight 386 lbs.	Price	\$114.00
Set 435-B8½-232	Weight 414 lbs.	Price	129.40

For doors opening out with butt hinges on both jambs.

Set 0435-A8½-232	Weight 350 lbs.	Price	102.00
Set 0435-B8½-232	Weight 378 lbs.	Price	117.40

### 8-Door Sets Using No. 33 Track (Four Doors Folding Each Way)

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A8½-33	Weight 419 lbs.	Price	\$131.00
Set 435-B8½-33	Weight 447 lbs.	Price	146.40

For doors opening out with butt hinges on both jambs.

Set 0435-A8½-33	Weight 383 lbs.	Price	119.00
Set 0435-B8½-33	Weight 411 lbs.	Price	134.40

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 105.

Headroom Required for: 31 Trk. 9'; 232 Trk. 11'; 33 Trk. 11½'.

Location of Bolt Holes and Bracket Spacing shown on page 109.

If Heavier Doors than above are required use 434 Hardware (Page 244)

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A8½-31 for opening 24' wide, 8' high, doors 1½" thick.

### 8-Door Short Sets (Four Doors Folding Each Way)

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in.

Set SS-435-8½-31	(For 31 track)	Weight 140 lbs.	Price	\$54.00
Set SS-435-8½-232	(For 232 track)	Weight 249 lbs.	Price	82.00
Set SS-435-8½-33	(For 33 track)	Weight 273 lbs.	Price	89.00

For doors opening out.

Set SS-0435-8½-31	(For 31 track)	Weight 136 lbs.	Price	54.00
Set SS-0435-8½-232	(For 232 track)	Weight 213 lbs.	Price	70.00
Set SS-0435-8½-33	(For 33 track)	Weight 237 lbs.	Price	77.00

Note—Length of track required shown on page 106.

Discount.....





Fig. A-1580—Illustration shows In-Opening Set 1035-B8 1/2-31. Doors are hinged to jambs with 1035 offset hinges. All sets on this page, either In-Opening or Out-Opening, use 1035 offset hinges at the jamb



Fig. A-1581—Slidetite equipment is adjustable laterally and vertically so that if a garage settles, causing the doors to bind, a few quickly made adjustments will correct the fault



Fig. A-1582—Plan of Tracks



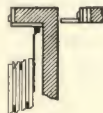
Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1583—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made the same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs

## Slidetite

Patented

R-W No. 1035

For Openings up to 24 feet wide

### 8-Door Sets (Four Doors Folding Each Way)

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that four No. 514 Spring Top Locking Bolts and four No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that four No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

#### 8-Door Sets Using No. 31 Track (Four Doors Folding Each Way)

For doors weighing up to 100 lbs. each

Set 1035-A8 1/2-31	Weight 279 lbs.	Price.....	\$ 87.00
Set 1035-B8 1/2-31	Weight 305 lbs.	Price.....	102.40

For doors opening out with offset hinges on both jambs.

Set O1035-A8 1/2-31	Weight 281 lbs.	Price.....	87.00
Set O1035-B8 1/2-31	Weight 307 lbs.	Price.....	102.40

#### 8-Door Sets Using No. 232 Track (Four Doors Folding Each Way)

For doors weighing between 100 lbs. and 175 lbs. each

Set 1035-A8 1/2-232	Weight 330 lbs.	Price.....	\$114.00
Set 1035-B8 1/2-232	Weight 354 lbs.	Price.....	129.40

For doors opening out with offset hinges on both jambs.

Set O1035-A8 1/2-232	Weight 334 lbs.	Price.....	114.00
Set O1035-B8 1/2-232	Weight 358 lbs.	Price.....	129.40

#### 8-Door Sets Using No. 33 Track (Four Doors Folding Each Way)

For doors weighing between 175 lbs. and 250 lbs. each

Set 1035-A8 1/2-33	Weight 423 lbs.	Price.....	\$131.00
Set 1035-B8 1/2-33	Weight 449 lbs.	Price.....	146.40

For doors opening out with offset hinges on both jambs.

Set O1035-A8 1/2-33	Weight 425 lbs.	Price.....	131.00
Set O1035-B8 1/2-33	Weight 451 lbs.	Price.....	146.40

#### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 105.

Headroom Required for: 31 Trk. 9"; 232 Trk. 11"; 33 Trk. 11 1/2".

Location of Bolt Holes and Bracket Spacing shown on page 109.

If Heavier Doors than above are required use 434 Hardware (Page 244).

#### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1035-A8 1/2-31 for opening 24' wide, 8' high, doors 1 1/4" thick.

#### 8-Door Short Sets (Four Doors Folding Each Way)

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in.

Set SS-1035-8 1/2-31	(For 31 track)	Weight 196 lbs.	Price.....	\$66.00
Set SS-1035-8 1/2-232	(For 232 track)	Weight 199 lbs.	Price.....	82.00
Set SS-1035-8 1/2-33	(For 33 track)	Weight 239 lbs.	Price.....	89.00

For doors opening out.

Set SS-O1035-8 1/2-31	(For 31 track)	Weight 200 lbs.	Price.....	66.00
Set SS-O1035-8 1/2-232	(For 232 track)	Weight 203 lbs.	Price.....	82.00
Set SS-O1035-8 1/2-33	(For 33 track)	Weight 243 lbs.	Price.....	89.00

Note—Length of track required shown on page 107.

Discount.....



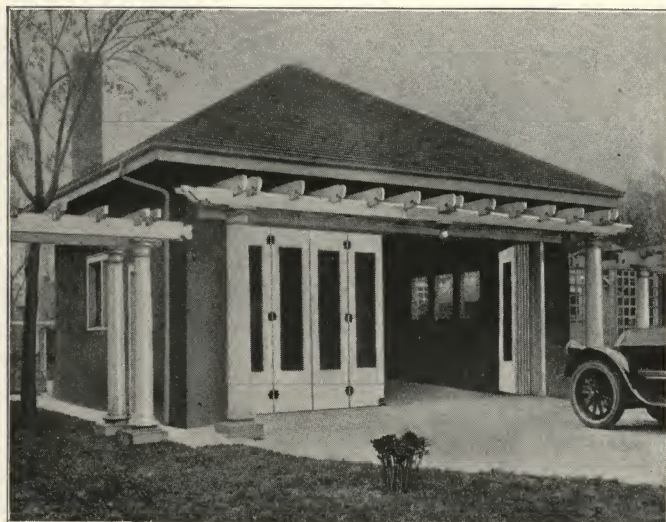


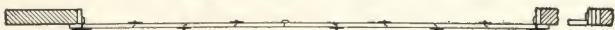
Fig. A-1584—When folded together the doors occupy a minimum amount of space



Fig. A-1585—Illustration shows In-Opening Set No. 435-B9-31. Doors are hinged to jambs with 311 offset hinges. When 232 or 33 track sets are used 1038 offset hinges are furnished instead of the 311. All Out-Opening sets are furnished with butts at jambs.



Fig. A-1586—Plan of Tracks



Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1587—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs.

## Slidetite

Patented

R-W No. 435  
For Openings up to 27 feet wide

### 9-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that four No. 514 Spring Top Locking Bolts and four No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that four No. 517 Cremone Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

#### 9-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A9-31	Weight 236 lbs.	Price	\$ 76.00
Set 435-B9-31	Weight 264 lbs.	Price	91.40

For doors opening out with butt hinges on both jambs.

Set O435-A9-31	Weight 232 lbs.	Price	76.00
Set O435-B9-31	Weight 260 lbs.	Price	91.40

#### 9-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A9-232	Weight 388 lbs.	Price	\$115.00
Set 435-B9-232	Weight 416 lbs.	Price	130.40

For doors opening out with butt hinges on both jambs.

Set O435-A9-232	Weight 352 lbs.	Price	103.00
Set O435-B9-232	Weight 380 lbs.	Price	118.40

#### 9-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A9-33	Weight 421 lbs.	Price	\$132.00
Set 435-B9-33	Weight 449 lbs.	Price	147.40

For doors opening out with butt hinges on both jambs.

Set O435-A9-33	Weight 385 lbs.	Price	120.00
Set O435-B9-33	Weight 413 lbs.	Price	135.40

#### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 105.

Headroom Required for: 31 Trk. 9'; 232 Trk. 11'; 33 Trk. 11½'.

Location of Bolt Holes and Bracket Spacing shown on page 109.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244).

#### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A9-31 for opening 27' wide, 8' high, doors 1¾" thick.

#### 9-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets

For doors opening in.

Set SS-435-9-31	(For 31 track)	Weight 142 lbs.	Price	\$55.00
Set SS-435-9-232	(For 232 track)	Weight 253 lbs.	Price	83.00
Set SS-435-9-33	(For 33 track)	Weight 281 lbs.	Price	90.00

For doors opening out.

Set SS-O435-9-31	(For 31 track)	Weight 138 lbs.	Price	55.00
Set SS-O435-9-232	(For 232 track)	Weight 217 lbs.	Price	71.00
Set SS-O435-9-33	(For 33 track)	Weight 245 lbs.	Price	78.00

Note—Length of track required shown on page 106.

Discount.....



## Slidetite

Patented

### R-W No. 1035

For Openings up to 27 feet wide

## 9-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that four No. 514 Spring Top Locking Bolts and four No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that four No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 9-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A9-31	Weight 283 lbs.	Price.....	\$ 88.00
Set 1035-B9-31	Weight 307 lbs.	Price.....	103.40

For doors opening out with offset hinges on both jambs.

Set O1035-A9-31	Weight 286 lbs.	Price.....	88.00
Set O1035-B9-31	Weight 310 lbs.	Price.....	103.40

### 9-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A9-232	Weight 350 lbs.	Price.....	\$115.00
Set 1035-B9-232	Weight 374 lbs.	Price.....	130.40

For doors opening out with offset hinges on both jambs.

Set O1035-A9-232	Weight 354 lbs.	Price.....	115.00
Set O1035-B9-232	Weight 378 lbs.	Price.....	130.40

### 9-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A9-33	Weight 431 lbs.	Price.....	\$132.00
Set 1035-B9-33	Weight 457 lbs.	Price.....	147.40

For doors opening out with offset hinges on both jambs.

Set O1035-A9-33	Weight 434 lbs.	Price.....	132.00
Set O1035-B9-33	Weight 460 lbs.	Price.....	147.40

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 105.

Headroom Required for: 31 Trk. 9"; 232 Trk. 11"; 33 Trk. 11 1/2".

Location of Bolt Holes and Bracket Spacing shown on page 109.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244)

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1035-A9-31 for opening 27' wide, 8' high, doors 1 3/4" thick.

### 9-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets

For doors opening in.

Set SS-1035-9-31	(For 31 track)	Weight 200 lbs.	Price.....	\$67.00
Set SS-1035-9-232	(For 232 track)	Weight 219 lbs.	Price.....	83.00
Set SS-1035-9-33	(For 33 track)	Weight 247 lbs.	Price.....	90.00

For doors opening out.

Set SS-O1035-9-31	(For 31 track)	Weight 204 lbs.	Price.....	67.00
Set SS-O1035-9-232	(For 232 track)	Weight 223 lbs.	Price.....	83.00
Set SS-O1035-9-33	(For 33 track)	Weight 251 lbs.	Price.....	90.00

Note—Length of track required shown on page 107.

Discount.....



Fig. A-1588—Slidetite equipment is furnished in three weights: Light; Medium; Heavy, this makes it possible for each weight door to be hung on hardware exactly suited in strength for it

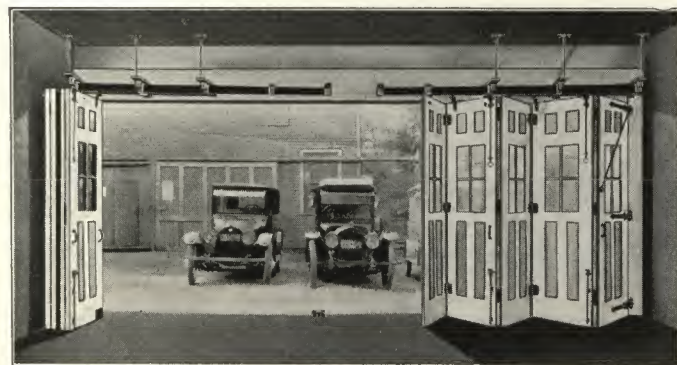
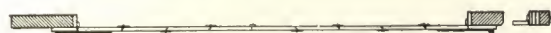


Fig. A-1589—Illustration shows In-Opening Set 1035-A9-31. Doors are hinged to jambs with 1035 offset hinges. All sets on this page, either In-Opening or Out-Opening, use 1035 offset hinges at the jambs



Fig. A-1590—Plan of Tracks



Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1591—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs



## Slidetite

Patented

### R-W No. 435

For Openings up to 30 feet wide

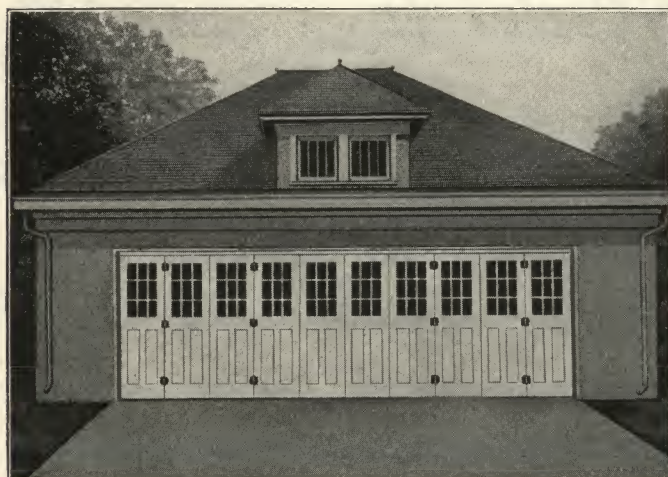


Fig. A-1592—Slidetite doors lend character to a garage. Being narrow they allow narrow glass panels to be used and an individual door construction that always has a splendid appearance.

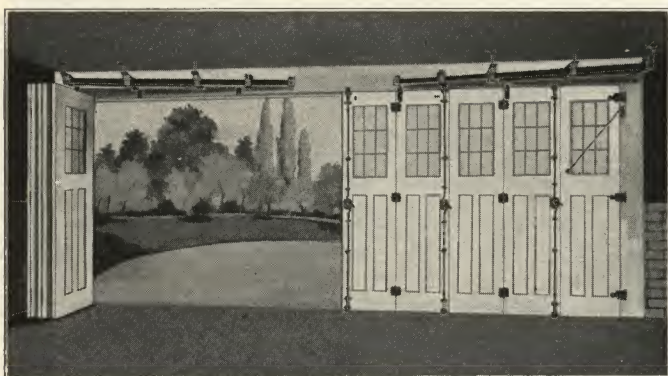


Fig. A-1593—Illustration shows In-Opening Set No. 435-B10-31. Doors are hinged to jambs with 311 offset hinges. Where 232 or 33 track sets are used 1038 offset hinges are furnished instead of the 311. All Out-Opening sets are furnished with butts at jambs.

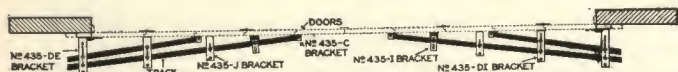


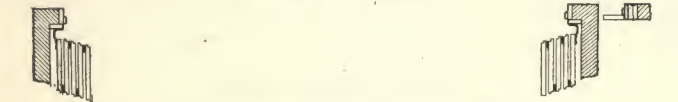
Fig. A-1594—Plan of Tracks



Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1595—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made same thickness as the doors. Detail at right shows frame construction, doors must be flush with frames and jambs.

## 10-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that five No. 514 Spring Top Locking Bolts and five No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** are used it means that five No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

### 10-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A10-31	Weight 243 lbs.	Price.....\$ 77.50
Set 435-B10-31	Weight 279 lbs.	Price..... 97.00

For doors opening out with butt hinges on both jambs.

Set O435-A10-31	Weight 239 lbs.	Price..... 77.50
Set O435-B10-31	Weight 275 lbs.	Price..... 97.00

### 10-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A10-232	Weight 412 lbs.	Price.....\$116.50
Set 435-B10-232	Weight 448 lbs.	Price..... 136.00

For doors opening out with butt hinges on both jambs.

Set O435-A10-232	Weight 376 lbs.	Price..... 104.50
Set O435-B10-232	Weight 412 lbs.	Price..... 124.00

### 10-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 435-A10-33	Weight 438 lbs.	Price.....\$133.50
Set 435-B10-33	Weight 474 lbs.	Price..... 153.00

For doors opening out with butt hinges on both jambs.

Set O435-A10-33	Weight 402 lbs.	Price..... 121.50
Set O435-B10-33	Weight 438 lbs.	Price..... 141.00

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 105.

Headroom Required for: 31 Trk. 9'; 232 Trk. 11'; 33 Trk. 11 1/2'.

Location of Bolt Holes and Bracket Spacing shown on page 109.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244)

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 435-A10-31 for opening 30' wide, 8' high, doors 1 3/4" thick.

### 10-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in.

Set SS-435-10-31	(For 31 track)	Weight 145 lbs.	Price.....\$55.00
Set SS-435-10-232	(For 232 track)	Weight 274 lbs.	Price..... 83.00
Set SS-435-10-33	(For 33 track)	Weight 288 lbs.	Price..... 90.00

For doors opening out.

Set SS-O435-10-31	(For 31 track)	Weight 141 lbs.	Price..... 55.00
Set SS-O435-10-232	(For 232 track)	Weight 238 lbs.	Price..... 71.00
Set SS-O435-10-33	(For 33 track)	Weight 252 lbs.	Price..... 78.00

Note—Length of track required shown on page 106.

Discount.....





Fig. A-1596—Wide openings are possible with Slidetite. No posts in the opening are required. When closed the doors are weathertight. A child can easily open or close the series of doors



Fig. A-1597—Illustration shows In-Opening Set 1035-A10-31. Doors are hinged to jambs with 1035 offset hinges. All sets on this page, either In-Opening or Out-Opening, use 1035 offset hinges at the jambs



Fig. A-1598—Plan of Tracks



Doors Closed



Doors Partly Opened



Doors Open at Right Angles to Front Wall



Doors Open Parallel with Front Wall

Fig. A-1599—Main Floor Plans show correct design of frames and jambs for brick or concrete construction. Frames and jambs should be made the same thickness as the doors. Small detail at right shows frame construction. Doors must be flush with frames and jambs

## Slidetite

Patented

R-W No. 1035

For Openings up to 30 feet wide

### 10-Door Sets

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

#### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that five No. 514 Spring Top Locking Bolts and five No. 524 Cane Bottom Locking Bolts are furnished with the set of hardware.

When the letter **B** is used it means that five No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraphs on page 79.

#### 10-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A10-31	Weight 289 lbs.	Price.....	\$ 89.50
Set 1035-B10-31	Weight 312 lbs.	Price.....	109.00

For doors opening out with offset hinges on both jambs.

Set O1035-A10-31	Weight 293 lbs.	Price.....	89.50
Set O1035-B10-31	Weight 316 lbs.	Price.....	109.00

#### 10-Door Sets Using No. 232 Track

For doors weighing between 100 lbs. and 175 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A10-232	Weight 357 lbs.	Price.....	\$116.50
Set 1035-B10-232	Weight 387 lbs.	Price.....	136.00

For doors opening out with offset hinges on both jambs.

Set O1035-A10-232	Weight 361 lbs.	Price.....	116.50
Set O1035-B10-232	Weight 391 lbs.	Price.....	136.00

#### 10-Door Sets Using No. 33 Track

For doors weighing between 175 lbs. and 250 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1035-A10-33	Weight 444 lbs.	Price.....	\$133.50
Set 1035-B10-33	Weight 476 lbs.	Price.....	153.00

For doors opening out with offset hinges on both jambs.

Set O1035-A10-33	Weight 448 lbs.	Price.....	133.50
Set O1035-B10-33	Weight 480 lbs.	Price.....	153.50

### SPECIAL NOTICE

These Complete Sets Contain all equipment, bolts, screws, and etc. necessary to erect.

Sets Include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 105.

Headroom Required for: 31 Trk. 9'; 232 Trk. 11'; 33 Trk. 11 1/2'.

Location of Bolt Holes and Bracket Spacing shown on page 109.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required use 434 Hardware (Page 244).

### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1035-A10-31 for opening 30' wide, 8' high, doors 1 1/4" thick.

#### 10-Door Short Sets

Track, Lock and Locking Bolts are omitted from Short Sets.

For doors opening in.

Set SS-1035-10-31	(For 31 track)	Weight 202 lbs.	Price.....	\$67.00
Set SS-1035-10-232	(For 232 track)	Weight 222 lbs.	Price.....	83.00
Set SS-1035-10-33	(For 33 track)	Weight 256 lbs.	Price.....	90.00

For doors opening out.

Set SS-O1035-10-31	(For 31 track)	Weight 206 lbs.	Price.....	67.00
Set SS-O1035-10-232	(For 232 track)	Weight 226 lbs.	Price.....	83.00
Set SS-O1035-10-33	(For 33 track)	Weight 260 lbs.	Price.....	90.00

Note—Length of track required shown on page 107.

Discount.....



## Slidetite

Patented

### Equipment for 435 and 1035 Garage Door Sets



Nos.  
435-1,  
435-2,  
435-3  
Hanger  
for  
In-Opening  
Doors



31, 232 and 33 Straight Trolley Track



Nos.  
435-21,  
435-22,  
435-23  
Special  
Hanger  
for  
Out-Opening  
Doors



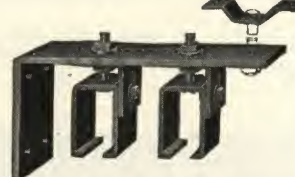
Second Bracket



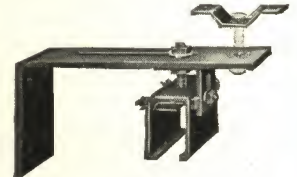
Center Bracket



Intermediate Bracket



Double Intermediate Bracket



Joint Bracket



No. 119  
Door Holder



End Bracket



Double End Bracket



No. 81-1  
Bow Handle



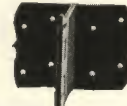
Surface Hinge  
No. 435-12" x 4"



Surface Hinge  
435-2 1/2" x 4"  
435-3 1/2" x 5"



Butt Hinge  
435-4" x 4"  
435-5" x 5"



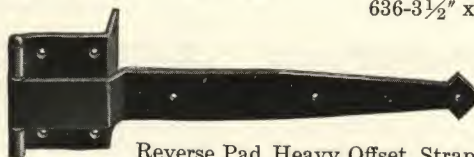
Offset  
Surface Hinge  
636-2 1/2" x 4"  
636-3 1/2" x 5"



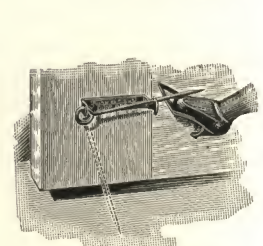
Offset Surface Hinge for Doors Opening  
Out—836-12" x 4"



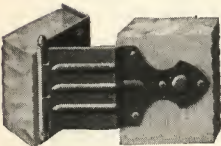
Offset Surface Hinge 836-12" x 4"



Reverse Pad Heavy Offset Strap Hinge  
1037-18" x 2 1/2" 1037-30" x 2 1/2"  
1037-24" x 2 1/2" 1037-36" x 2 1/2"



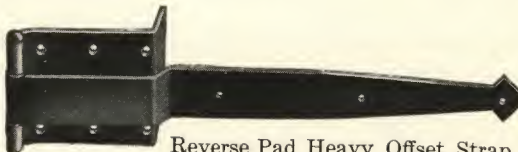
No. 99 Door Dog



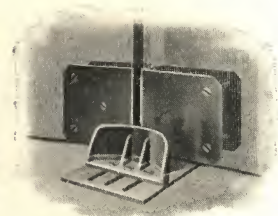
Half Surface Butt  
311-4" x 8 1/2"



Offset  
Surface Hinge  
836-2 1/2" x 4"  
836-3 1/2" x 5"

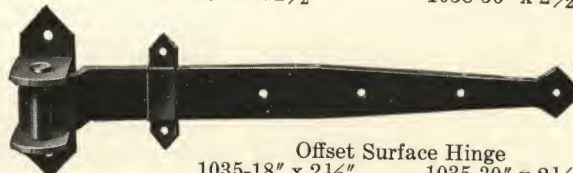
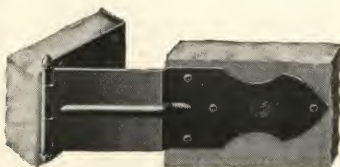


Reverse Pad Heavy Offset Strap Hinge  
1038-18" x 2 1/2" 1038-30" x 2 1/2"  
1038-24" x 2 1/2" 1038-36" x 2 1/2"



271 Center Floor Guide  
and 435-72 Bumper Shoes

Half Surface  
Butt  
311-4" x 14"



Offset Surface Hinge  
1035-18" x 2 1/2" 1035-30" x 2 1/2"  
1035-24" x 2 1/2" 1035-36" x 2 1/2"



Tie  
Rod



## No. 435 and 1035 Detail of Hardware and List Price of Parts

DESCRIPTION	Light Weight Hdw. using No. 31 Track For Doors Weighing up to 125 lbs. each			Medium Weight Hdw. using No. 232 Track For Doors Weighing Between 125-175 lbs. each			Heavy Weight Hdw. using No. 33 Track For Doors Weighing from 175 to 250 lbs. each		
	Catalog Number	List Price	Shipping Wt., lbs.	Catalog Number	List Price	Shipping Wt., lbs.	Catalog Number	List Price	Shipping Wt., lbs.
Hangers, Roller Bearing for In-Opening Doors.....	*435-1	\$3.50	3 1/2	435-3	\$4.50	7 1/2	435-2	\$5.00	8
Hangers, Special Roller Bearing, for Out-Opening Doors (page 102) each.....	**435-21	3.50	3 1/2	435-23	4.50	7 1/2	435-22	5.00	9
***Trolley Track, per foot.....	31	.25	1 3/4	232	.45	2 3/4	33	.58	4
Bow Handles (page 459), each.....	81-1	.27	1/2	81-2	.45	1	81-2	.45	1
Brackets, Center Track, each.....	435x31-C	.30	1	435x232-C	1.00	2 3/4	435x33-C	1.25	4 1/4
Brackets, Intermediate Track, each.....	435x31-I	.70	3 1/2						
Brackets, End Track, each.....	435x31-E	1.00	3 1/2						
Brackets, Joint, each.....	435x31-J	4.80	8	435x232-J	7.25	10 1/2	435x33-J	8.25	14
Brackets, Second, each.....	435x31-S	.40	2	435x232-DE	6.35	16	435x33-DE	7.25	22
Brackets, Double End, each.....	435x31-DE	4.00	11 1/2						
Brackets, Double Intermediate, each.....	435x31-DI	3.80	10 1/4	435x232-DI	5.75	15	435x33-DI	6.15	20
Brackets, Second, each.....				1035x232-S	1.20	5	1035x33-S	1.50	6
Brackets, End Track, each.....	1035x31-E	1.00	5	1035x232-E	4.00	14	1035x33-E	4.50	16
Brackets, Intermediate Track, each.....	1035x31-I	.70	3	1035x232-I	3.25	9 1/2	1035x33-I	4.25	11
Brackets, Double End, each.....	1035x31-DE	4.00	13 1/4	1035x232-DE	6.35	19	1035x33-DE	7.25	24
Brackets, Double Intermediate, each.....	1035x31-DI	3.80	12	1035x232-DI	5.75	16	1035x33-DI	6.15	21
Brackets, Joint, each.....	1035x31-J	4.80	12	1035x232-J	7.25	11	1035x33-J	8.25	14
Ceiling Clips, each.....	435x31-CC	.20	1/2	435x232-CC	.24	1	435x33-CC	.30	1
**Hinges, Half Surface Butt (page 484), per pair.....	311-4"x8 1/2"	1.60	3 3/4						
Hinges, Half Surface Butt (page 484), per pair.....	311-4"x14"	2.00	6 3/4	435-5"x5"	1.00	2	435-5"x5"	1.00	2
Hinges, Butt (page 484), per pair.....	435-4"x4"	.60	1 1/2						
Hinges, Surface (page 485), per pair.....	435-2 1/2"x4"	.80	1 1/2	435-3 1/2"x5"	1.40	4	435-3 1/2"x5"	1.40	4
Hinges, Offset Surface (page 485), per pair.....	636-2 1/2"x4"	.90	2	435-12"x4"	2.20	8 3/4	435-12"x4"	2.20	8 3/4
Hinges, Offset Surface (page 485), per pair.....				636-3 1/2"x5"	1.50	5	636-3 1/2"x5"	1.50	5
*Hinges, Offset Surface (page 485), per pair.....	836-2 1/2"x4"	1.00	2	636-12"x4"	2.60	9 1/4	636-12"x4"	2.60	9 1/4
*Hinges, Offset Surface (page 485), per pair.....				836-3 1/2"x5"	1.60	5	836-3 1/2"x5"	1.60	5
				836-12"x4"	3.00	9 1/4	836-12"x4"	3.00	9 1/4
Hinges, Offset Surface (page 486), per pair {	1035-18"x2 1/2"	4.00	12	1035-18"x2 1/2"	4.00	12	1035-18"x2 1/2"	4.00	12
	1035-24"x2 1/2"	4.50	14	1035-24"x2 1/2"	4.50	14	1035-24"x2 1/2"	4.50	14
	1035-30"x2 1/2"	5.00	16	1035-30"x2 1/2"	5.00	16	1035-30"x2 1/2"	5.00	16
	1035-36"x2 1/2"	5.50	18	1035-36"x2 1/2"	5.50	18	1035-36"x2 1/2"	5.50	18
Hinges, Reverse Pad Heavy Offset Strap, (page 487). Per pair.....				1037-18"x2 1/2"	4.30	10 1/2	1037-18"x2 1/2"	4.30	10 1/2
				1037-24"x2 1/2"	4.80	13	1037-24"x2 1/2"	4.80	13
				1037-30"x2 1/2"	5.30	17 1/2	1037-30"x2 1/2"	5.30	17 1/2
				1037-36"x2 1/2"	5.80	21	1037-36"x2 1/2"	5.80	21
Hinges, Reverse Pad Heavy Offset Strap, (page 487). Per pair.....				1038-18"x2 1/2"	4.50	11	1038-18"x2 1/2"	4.50	11
				1038-24"x2 1/2"	4.75	14	1038-24"x2 1/2"	4.75	14
				1038-30"x2 1/2"	5.25	19	1038-30"x2 1/2"	5.25	19
				1038-36"x2 1/2"	5.75	23	1038-36"x2 1/2"	5.75	23
Center Floor Guides (page 455), each.....	271	.90	3	271	.90	3	271	.90	3
Bumper Shoes (page 454), each.....	435-72	.12	1/8	435-72	.12	1/8	435-72	.12	1/8
Latch for Out-Opening Doors, each.....	219	1.20	3	219	1.20	3	219	1.20	3
Door Holders, each.....	119	.19	1/4	119	.19	1/4	119	.19	1/4
Door Dogs, per pair.....	99	.75	1 1/4	99	.75	1 1/4	99	.75	1 1/4
†Tie Rods for 435 Doors: † 23" to 29" wide (page 482), complete.....	435-1	1.30	2	435-1	1.30	2	435-1	1.30	2
† or for doors 30"-36" wide (page 482).....	435-2	1.50	2 1/4	435-2	1.50	2 1/4	435-2	1.50	2 1/4
†Tie Rods for 1035 Doors: † 23" to 29" wide (page 482), each.....	435-11	1.30	2	435-11	1.30	2	435-11	1.30	2
† 30" to 36" wide (page 482), each.....	435-12	1.50	2	435-12	1.50	2	435-12	1.50	2
† 37" to 42" wide (page 482), each.....	435-13	1.70	4	435-13	1.70	4	435-13	1.70	4
† 43" to 48" wide (page 482), each.....	435-14	1.90	4	435-14	1.90	4	435-14	1.90	4

Note—For information concerning Locking Bolts see page 79.

†Only used where there is a series of three or more doors hinged together.

‡Only used where there is a series of three or more doors hinged together.

Specify pintle "A" when tie rod is to be used on doors hung with butts.

Specify pintle "B" when tie rod is to be used on doors hung on No. 311 half surface butts.

Specify pintle "C" when tie rod is to be used on doors hung on No. 1037 or 1038 Reverse Pad Heavy Offset Strap Hinges.

Ceiling Clips not included in Price of Brackets.

\*Used only on out-opening doors.

\*\*For doors opening inside only.

\*\*\*Length of pieces determined by size of openings.

Discount.....

### R-W No. 435 Hanger and Bracket Sets For No. 31 Track

These sets are intended for such of our dealers who carry all hardware necessary for No. 435 Garage Door Sets in stock with the exception of Hangers and Brackets. Hanger and Brackets as listed come all packed in metal-edged carton. A set consists of 1 No. 435-1 Hanger, 1 No. 435x31-I Bracket, 1 No. 435x31-E Bracket, 1 No. 435x31-C Bracket with screws and bolts for erecting. Set is suitable for 3-door and one-track 4-door installations. For two-track 4-door, 5 and 6-door outfits use two sets. Weight per set, 13 lbs.

List Price

No. 435 Hanger and Bracket Set, each.....\$5.50

Discount.....

### R-W No. 1035 Hanger and Bracket Sets For No. 31 Track

These sets are intended for such of our dealers who carry all hardware necessary for 1035 Garage Door Sets in stock with the exception of Hangers and Brackets. Hanger and Brackets as listed come all packed in metal-edged carton. A set consists of 1 No. 435-1 Hanger, 1 No. 1035x31-I Bracket, 1 No. 1035x31-E Bracket, 1 No. 435x31-C Bracket, with screws and bolts for erecting. Set is suitable for 3-door and one-track 4-door equipments. For two track 4-door, 5 and 6-door outfits use two sets. Weight per set, 14 lbs.

List Price

No. 1035 Hanger and Bracket Set, each.....\$5.50

Discount.....

There is only one original Slidetite and that is manufactured by R-W



## Slidetite Interior Elevations

### Showing Proper Location and Names of Various Parts

#### Concerning 435 In-Opening Sets

The illustrations on these two pages show all hardware used with 31 track sets, (except surface hinges on other side of doors.) When 232 or 33 track sets are used, the hinges then needed are substituted for those here shown.

#### Concerning 435 Out-Opening Sets

When doors open out the Exterior Elevations would, for 31 track, be the same as the interior elevations here shown except; butts would be used at both jambs in all cases; and the locking door bolts would be on the interior of the garage instead of on the same side as the trolley track. When 232 and 33 track sets are used the hinges required would be substituted for the ones here shown. The surface hinges used on the opposite side of the doors are of necessity not shown on these elevations.

#### Concerning 1035 In-Opening Sets

The location of the various parts required for 1035 sets are the same as of the 435 sets here illustrated, except that while the surface hinges are the same, all the other hinges change, on not only the 31 track sets, but on the 232 and 33 track sets also. The track brackets extend somewhat farther from the wall than the brackets furnished with 435 sets.

#### Concerning 1035 Out-Opening Sets

When doors open out, the exterior elevations would be the same as the interior elevations here shown except; heavy offset surface hinges are used at the jambs, and the locking bolts will be on the interior of the garage instead of on the same side as the track and brackets. Direction Sheets for Erection are furnished with each set of Hardware.

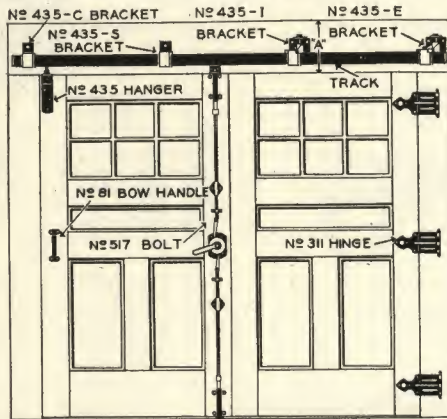


Fig. A-1600—Set No. 435-B2-31

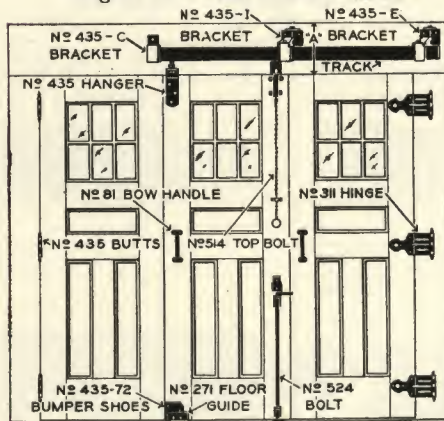


Fig. A-1601—Set No. 435-A3-31

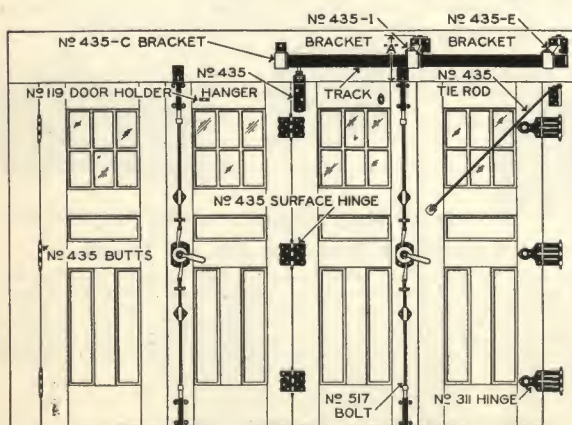


Fig. A-1602—Set No. 435-B4-31

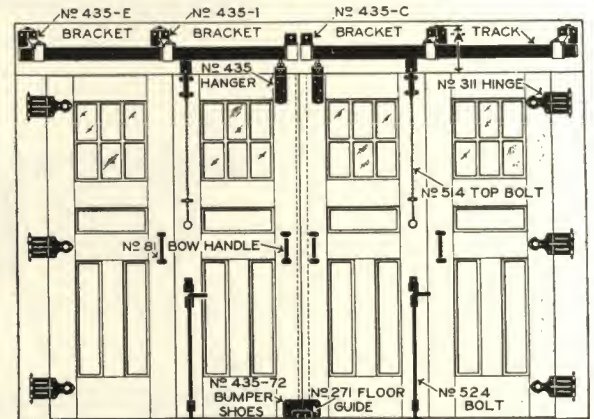


Fig. A-1603—Set No. 435-A4 1/2-31

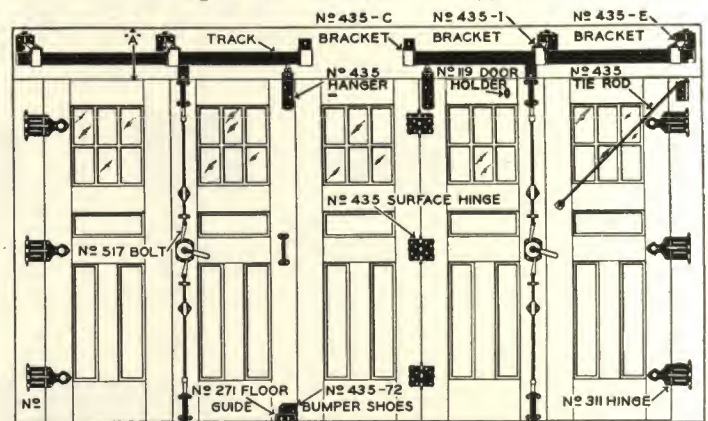


Fig. A-1604—Set No. 435-B5-31

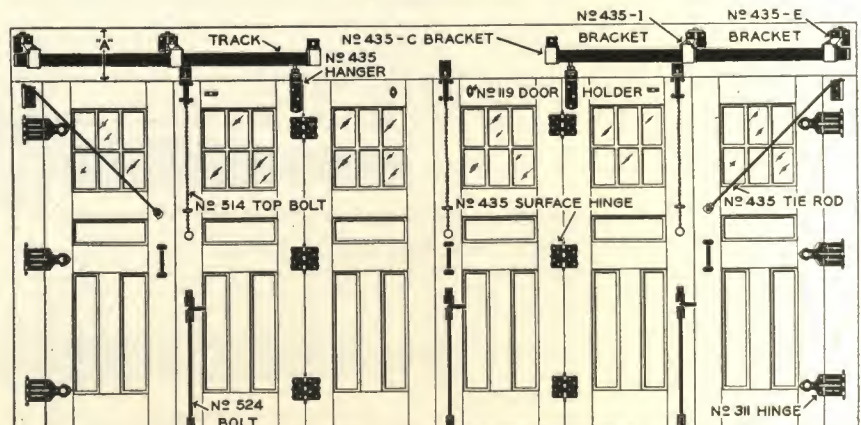


Fig. A-1605—Set No. 435-A6-31



Fig. A-1606  
Set No. 435-B7-31

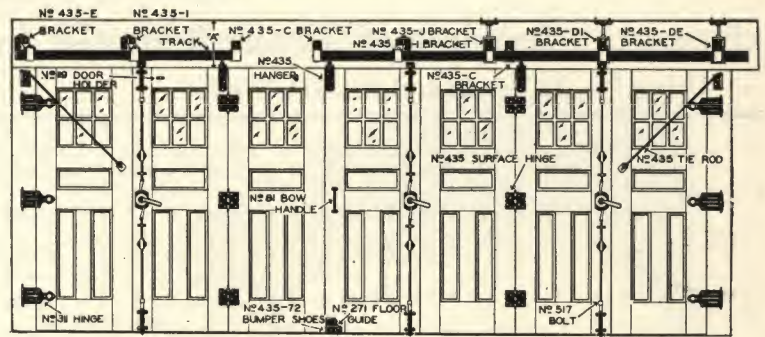


Fig. A-1607  
Set No. 435-A8-31

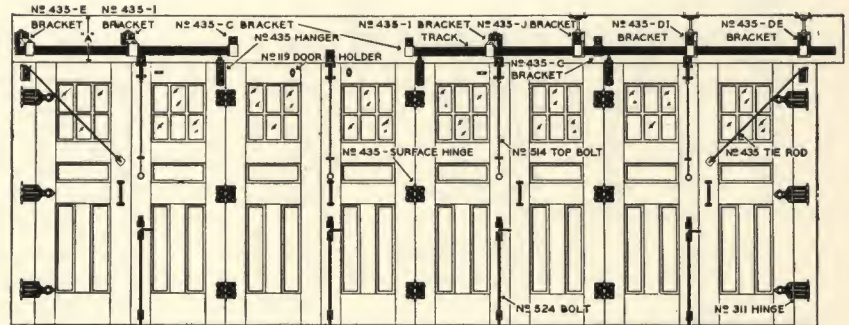


Fig. A-1608  
Set No. 435-B8½-31

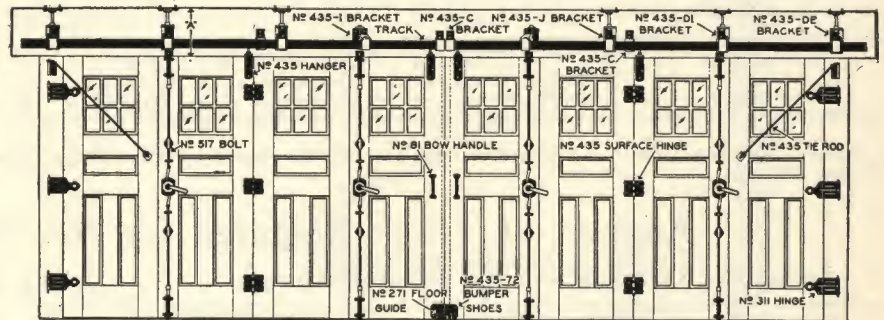


Fig. A-1609  
Set No. 435-A9-31

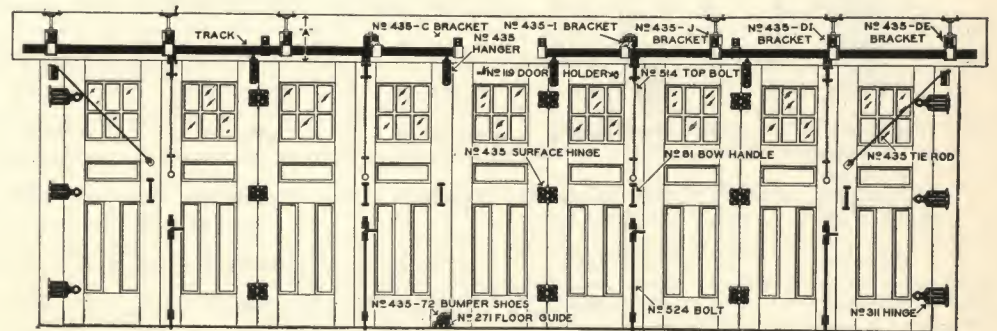
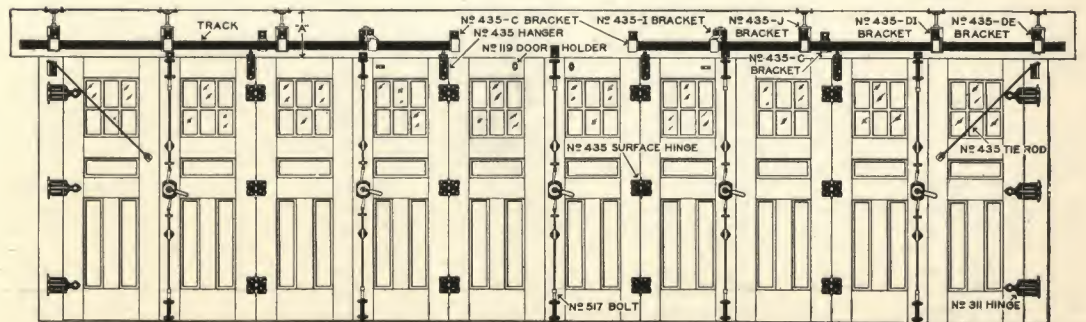


Fig. A-1610  
Set No. 435-B10-31





## Amount of Track Required for No. 435 In-Opening Sets

Using No. 31 Track and No. 311 Hinges

Using Nos. 232, 33 Track and 1037 or 1038 Hinges

No. Doors of Opening	Tracks Required Per Opening	Doors Standing at Right Angles	Doors Parallel to Front Wall
2 Doors	1 Pc. Track=	* plus 9 "	* plus 17 "
3 Doors	1 Pc. Track=	* plus 9 "	* plus 17 "
4 Doors	1 Pc. Track=	* plus 9 "	* plus 17 "
4 Doors {2 Folding Each Way}	2 Pcs. Track=	* plus 6 "	* plus 14 "
5 Doors	2 Pcs. Track=	* plus 9 "	* plus 17 "
6 Doors	2 Pcs. Track=	* plus 9 "	* plus 17 "
7 Doors	1 Pc. Track= 1 Pc. Track= 1 Pc. Track= 1 Pc. Track=	* plus 9 " * plus 9 " * plus 11½" * Minus 1½"	* plus 17 " * plus 20 " * plus 22½" * minus 1½"
8 Doors	1 Pc. Track= 1 Pc. Track= 1 Pc. Track= 1 Pc. Track=	* plus 9 " * plus 9 " * plus 11½" * minus 1½"	* plus 17 " * plus 20 " * plus 22½" * minus 1½"
8 Doors {4 Folding Each Way}	2 Pcs. Track= 2 Pcs. Track= 2 Pcs. Track=	* plus 9 " * plus 11½" * minus 4½"	* plus 17 " * plus 22½" * minus 4½"
9 Doors and	2 Pcs. Track=	* plus 9 "	* plus 20 "
10 Doors	2 Pcs. Track= 2 Pcs. Track=	* plus 11½" * minus 1½"	* plus 22½" * minus 1½"

Hinge	Tracks Req'd. Per Opening	Doors Standing at Right Angles	Doors Parallel to Front Wall
†	1 Pc. Track=	* plus 12"	* plus 22"
†	1 Pc. Track=	* plus 12"	* plus 22"
†	1 Pc. Track=	* plus 12"	* plus 27"
†	1 Pc. Track=	* plus 8"	* plus 19"
†	2 Pc. Track=	* plus 12"	* plus 27"
†	2 Pc. Track=	* plus 12"	* plus 27"
†	1 Pc. Track= 1 Pc. Track= 1 Pc. Track= 1 Pc. Track=	* plus 12" * plus 12" * plus 15" * minus 2"	* plus 27" * plus 32" * plus 35" * minus 2"
†	1 Pc. Track= 1 Pc. Track= 1 Pc. Track= 1 Pc. Track=	* plus 12" * plus 12" * plus 15" * minus 2"	* plus 27" * plus 32" * plus 35" * minus 2"
†	2 Pc. Track= 2 Pc. Track= 2 Pc. Track=	* plus 12" * plus 15" * minus 6"	* plus 32" * plus 35" * minus 6"
†	2 Pc. Track= 2 Pc. Track= 2 Pc. Track=	* plus 12" * plus 15" * minus 2"	* plus 32" * plus 35" * minus 2"

Note—\*Signifies "Width of 2 Doors" †That 1037 Reverse Pad Offset Strap Hinges are used. ‡That 1038 Reverse Pad Offset Strap Hinges are used.

## Amount of Track Required for No. 435 Out-Opening Sets

Using No. 31 Track and No. 435 Butt Hinges

Using Nos. 232, 33 Track and No. 435 Butt Hinges

No. Doors of Opening	Tracks Req's. Per Opening	Doors Standing at Right Angles	Doors Parallel to Front Wall
2 Doors	1 Pc. Track=	* plus 8 "	* plus 9 "
3 Doors	1 Pc. Track=	* plus 8 "	* plus 9 "
4 Doors	1 Pc. Track=	* plus 8 "	* plus 9 "
4 Doors {2 Folding Each Way}	2 Pcs. Track=	* plus 5 "	* plus 6 "
5 Doors	2 Pcs. Track=	* plus 8 "	* plus 9 "
6 Doors	2 Pcs. Track=	* plus 8 "	* plus 9 "
7 Doors	1 Pc. Track= 1 Pc. Track= 1 Pc. Track= 1 Pc. Track=	* plus 8 " * plus 8 " * plus 10½" * minus 1½"	* plus 9 " * plus 13 " * plus 15½" * minus 1½"
8 Doors	1 Pc. Track= 1 Pc. Track= 1 Pc. Track= 1 Pc. Track=	* plus 8 " * plus 8 " * plus 10½" * minus 1½"	* plus 9 " * plus 13 " * plus 15½" * minus 1½"
8 Doors {4 Folding Each Way}	2 Pcs. Track= 2 Pcs. Track= 2 Pcs. Track=	* plus 8 " * plus 10½" * minus 4½"	* plus 13 " * plus 15½" * minus 4½"
9 Doors and	2 Pcs. Track=	* plus 9 "	* plus 20 "
10 Doors	2 Pcs. Track= 2 Pcs. Track=	* plus 11½" * minus 1½"	* plus 22½" * minus 1½"

Tracks Required Per Opening	Doors Standing at Right Angles	Doors Parallel to Front Wall
1 Pc. Track=	* plus 11"	* plus 12"
1 Pc. Track=	* plus 11"	* plus 12"
1 Pc. Track=	* plus 11"	* plus 12"
2 Pcs. Track=	* plus 7"	* plus 8"
2 Pcs. Track=	* plus 11"	* plus 12"
2 Pcs. Track=	* plus 11"	* plus 12"
1 Pc. Track= 1 Pc. Track= 1 Pc. Track= 1 Pc. Track=	* plus 11" * plus 11" * plus 14" * minus 2"	* plus 12" * plus 16" * plus 19" * minus 2"
1 Pc. Track= 1 Pc. Track= 1 Pc. Track= 1 Pc. Track=	* plus 11" * plus 11" * plus 14" * minus 2"	* plus 12" * plus 16" * plus 19" * minus 2"
2 Pcs. Track= 2 Pcs. Track= 2 Pcs. Track=	* plus 11" * plus 14" * minus 6"	* plus 16" * plus 19" * minus 6"
2 Pcs. Track= 2 Pcs. Track= 2 Pcs. Track=	* plus 11" * plus 14" * minus 2"	* plus 16" * plus 19" * minus 2"



## Amount of Track Required for No. 1035 In Opening and Out Opening Sets Using No. 33 Track and No. 1035 Heavy Offset Hinges

No. Doors Of Opening	Track Req'd. Per Opening	Doors Standing at Right Angles	Doors Paralle to Front Wall
2 Doors	1 Pc. Track	Width of 2 Doors plus 12"	Width of 2 Doors plus 15"
3 Doors	1 Pc. Track	Width of 2 Doors plus 12"	Width of 2 Doors plus 15"
4 Doors	1 Pc. Track	Width of 2 Doors plus 12"	Width of 2 Doors plus 15"
4 Doors (2 Folding Each Way)	2 Pcs. Track	Width of 2 Doors plus 7"	Width of 2 Doors plus 10"
5 Doors	2 Pcs. Track	Width of 2 Doors plus 12"	Width of 2 Doors plus 15"
6 Doors	2 Pcs. Track	Width of 2 Doors plus 12"	Width of 2 Doors plus 15"
7 Doors	1 Pc. Track 1 Pc. Track 1 Pc. Track 1 Pc. Track	Width of 2 Doors plus 12" Width of 2 Doors plus 14" Width of 2 Doors plus 17" Width of 2 Doors minus 2"	Width of 2 Doors plus 15" Width of 2 Doors plus 19" Width of 2 Doors plus 22" Width of 2 Doors minus 2"
8 Doors	1 Pc. Track 1 Pc. Track 1 Pc. Track 1 Pc. Track	Width of 2 Doors plus 12" Width of 2 Doors plus 19" Width of 2 Doors plus 22" Width of 2 Doors minus 2"	Width of 2 Doors plus 15" Width of 2 Doors plus 19" Width of 2 Doors plus 22" Width of 2 Doors minus 2"
8 Doors (4 Folding Each Way)	2 Pcs. Track 2 Pcs. Track 2 Pcs. Track	Width of 2 Doors plus 14" Width of 2 Doors plus 17" Width of 2 Doors minus 6"	Width of 2 Doors plus 19" Width of 2 Doors plus 22" Width of 2 Doors minus 6"
9 Doors	1 Pc. Track 1 Pc. Track 2 Pcs. Track 1 Pc. Track 1 Pc. Track	Width of 2 Doors plus 14" Width of 2 Doors plus 17" Width of 2 Doors minus 2" Width of 2 Doors plus 19" Width of 2 Doors plus 22"	Width of 2 Doors plus 19" Width of 2 Doors plus 22" Width of 2 Doors minus 2" Width of 2 Doors plus 19" Width of 2 Doors plus 22"
10 Doors	2 Pcs. Track 2 Pcs. Track 2 Pcs. Track	Width of 2 Doors plus 19" Width of 2 Doors plus 22" Width of 2 Doors minus 2"	Width of 2 Doors plus 19" Width of 2 Doors plus 22" Width of 2 Doors minus 2"

### Dimensions for Sidewall Support

Track No.	"A"	"D"	"E"	
			435	1035
31	1 1/2"	8 1/2"	7"	9 1/4"
232	1 1/2"	10 1/2"	9"	11 1/2"
33	1 1/2"	10 1/2"	9"	11 1/2"

### Dimensions for Overhead Support

Track No.	"A"	"B"		"C"	"F"	"G"
		435	1035			
31	1 1/2"	15 1/2"	20"	9"	5 3/8"	3 1/4"
232	1 1/2"	19 1/2"	25"	11"	6"	1 1/4"
33	1 1/2"	19 1/2"	25"	11 1/2"	6 1/4"	1 1/4"

See pages 102 and 103 for Ceiling Clips.

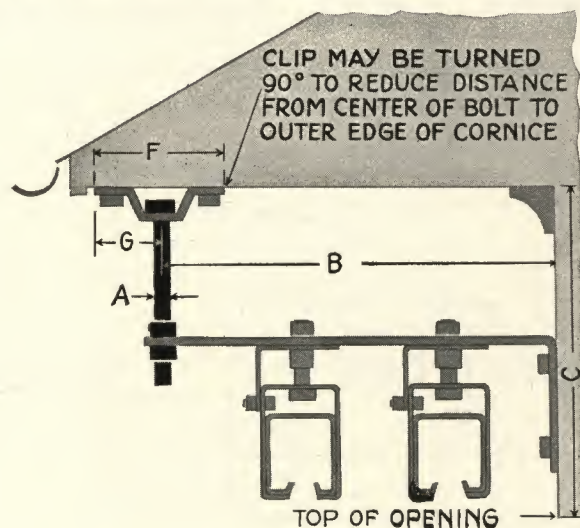
## Bracket Suspension Bolts for Overhead Attaching

Square heads, two square nuts, cut thread and finished points

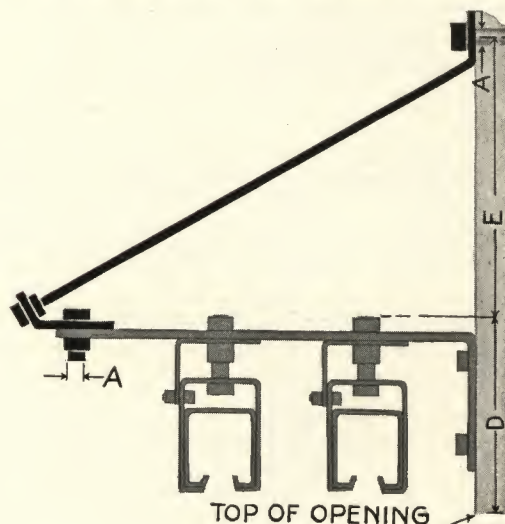
Size of Bolts for 31 Track	Price Each	Size of Bolts for 232 Track	Price Each	Size of Bolts for 33 Track	Price Each
1/2-inch x 2-inch	\$ .08	5/8-inch x 2-inch	\$ .13	3/4-inch x 2-inch	\$ .21
1/2-inch x 3-inch	.09	5/8-inch x 3-inch	.14	3/4-inch x 3-inch	.23
1/2-inch x 4-inch	.10	5/8-inch x 4-inch	.16	3/4-inch x 4-inch	.25
1/2-inch x 5-inch	.11	5/8-inch x 5-inch	.17	3/4-inch x 5-inch	.27
1/2-inch x 6-inch	.12	5/8-inch x 6-inch	.19	3/4-inch x 6-inch	.29
1/2-inch x 7-inch	.13	5/8-inch x 7-inch	.20	3/4-inch x 7-inch	.31
1/2-inch x 8-inch	.14	5/8-inch x 8-inch	.21	3/4-inch x 8-inch	.33
1/2-inch x 9-inch	.15	5/8-inch x 9-inch	.23	3/4-inch x 9-inch	.35
1/2-inch x 10-inch	.16	5/8-inch x 10-inch	.24	3/4-inch x 10-inch	.37
1/2-inch x 11-inch	.16	5/8-inch x 11-inch	.25	3/4-inch x 11-inch	.39
1/2-inch x 12-inch	.17	5/8-inch x 12-inch	.27	3/4-inch x 12-inch	.41
1/2-inch x 13-inch	.18	5/8-inch x 13-inch	.28	3/4-inch x 13-inch	.43
1/2-inch x 14-inch	.19	5/8-inch x 14-inch	.29	3/4-inch x 14-inch	.45
1/2-inch x 15-inch	.20	5/8-inch x 15-inch	.31	3/4-inch x 15-inch	.47
1/2-inch x 16-inch	.21	5/8-inch x 16-inch	.32	3/4-inch x 16-inch	.49
1/2-inch x 17-inch	.22	5/8-inch x 17-inch	.34	3/4-inch x 17-inch	.51
1/2-inch x 18-inch	.23	5/8-inch x 18-inch	.35	3/4-inch x 18-inch	.53
1/2-inch x 19-inch	.24	5/8-inch x 19-inch	.36	3/4-inch x 19-inch	.55
1/2-inch x 20-inch	.25	5/8-inch x 20-inch	.38	3/4-inch x 20-inch	.56
1/2-inch x 21-inch	.26	5/8-inch x 21-inch	.39	3/4-inch x 21-inch	.58
1/2-inch x 22-inch	.27	5/8-inch x 22-inch	.40	3/4-inch x 22-inch	.60
1/2-inch x 23-inch	.28	5/8-inch x 23-inch	.41	3/4-inch x 23-inch	.62
1/2-inch x 24-inch	.29	5/8-inch x 24-inch	.43	3/4-inch x 24-inch	.64

Discount \_\_\_\_\_

## Overhead and Side Wall Supports



**Suspension Bolt**  
for Nos. 435 and 1035 DE, DI and J Brackets



**Suspension Rod**  
for Nos. 435 and 1035 DE, DI and J Brackets

**Suspension Rods for Side Wall Attachment**  
(with Bolts and Clips)

### For No. 435 Equipment

<b>For No. 31 Track:</b>	
435 x 31 Double Intermediate Bracket Suspension Rods, each	\$1.60
435 x 31 Joint Bracket Suspension Rods, each	1.60
435 x 31 Double End Bracket Suspension Rods, each	1.60

<b>For No. 33 Track:</b>	
435 x 33 Double Intermediate Bracket Suspension Rods, each	1.90
435 x 33 Joint Bracket Suspension Rods, each	1.90
435 x 33 Double End Bracket Suspension Rods, each	1.90

<b>For No. 232 Track:</b>	
435 x 232 Double Intermediate Bracket Suspension Rods, each	1.90
435 x 232 Joint Bracket Suspension Rods, each	1.90
435 x 232 Double End Bracket Suspension Rods, each	1.90

### For No. 1035 Equipment

<b>For No. 31 Track:</b>	
1035 x 31 Double Intermediate Bracket Suspension Rods, each	1.60
1035 x 31 Joint Bracket Suspension Rods, each	1.60
1035 x 31 Double End Bracket Suspension Rods, each	1.60

<b>For No. 33 Track:</b>	
1035 x 33 Double Intermediate Bracket Suspension Rods, each	1.90
1035 x 33 Joint Bracket Suspension Rods, each	1.90
1035 x 33 Double End Bracket Suspension Rods, each	1.90

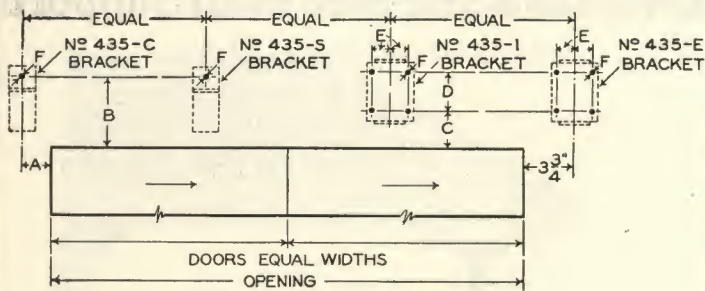
<b>For No. 232 Track:</b>	
1035 x 232 Double Intermediate Bracket Suspension Rods, each	1.90
1035 x 232 Joint Bracket Suspension Rods, each	1.90
1035 x 232 Double End Bracket Suspension Rods, each	1.90



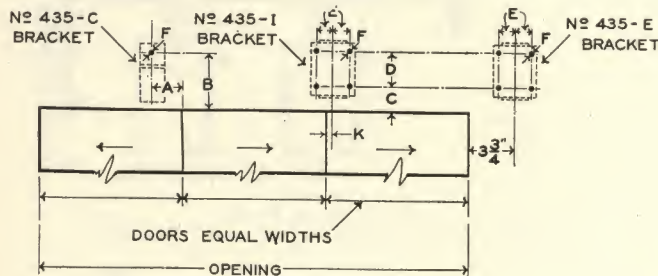
## Bolt Spacings for Brackets

For Slidetite 435 and 1035 Two to Six-Door Sets

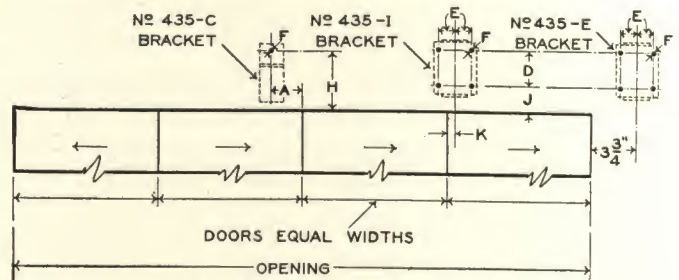
This data shows bolt spacings for use of architects, engineers, and contractors, so that steel lintels may be punched in the shop, or so that bolts may be built into concrete or masonry lintels.



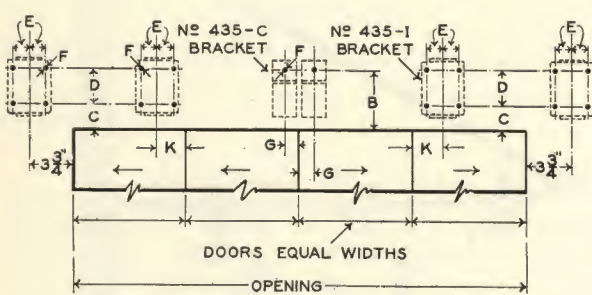
TWO DOOR SET  
REVERSE FOR OPPOSITE HAND



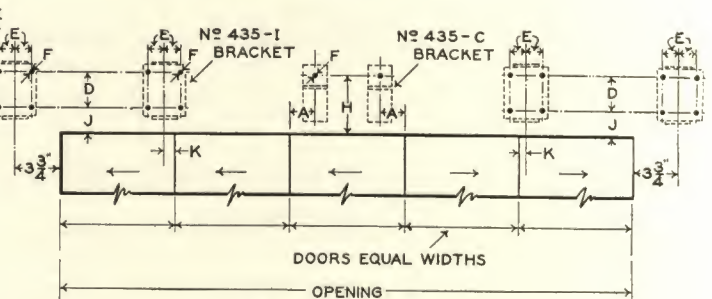
THREE DOOR SET  
REVERSE FOR OPPOSITE HAND



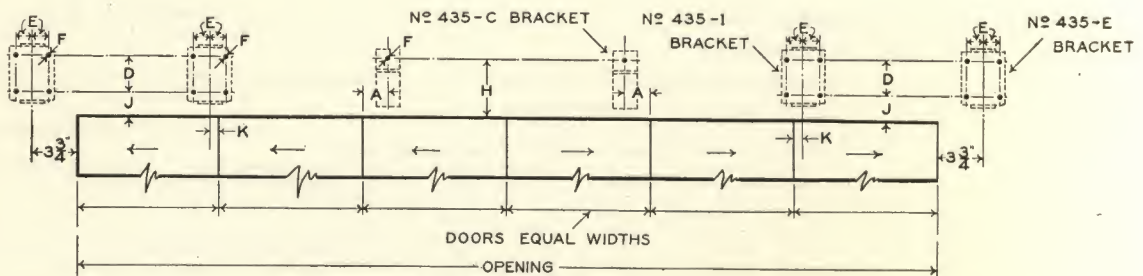
FOUR DOOR SET  
ONE TRACK  
REVERSE FOR OPPOSITE HAND



FOUR DOOR SET  
TWO TRACK



FIVE DOOR SET



SIX DOOR SET

TABLE										
Size of Track	A	B	C	D	E	F Size of Bolt	G	H	J	K
31 & 35	2 1/8"	5 1/4"	2 1/2"	3 "	1 3/8"	3/8"	1 1/4"	7 1/4"	4 1/2"	1 3/4"
232	2 3/4"	7 "	2 1/2"	4 7/8"	2 3/8"	1/2"	1 5/8"	10 "	5 1/2"	3 1/2"
33	2 5/8"	7 "	2 1/2"	4 7/8"	2 3/8"	1/2"	1 3/4"	10 "	5 1/2"	3 1/2"

Note—When working in minimum headroom  
For No. 31 Track B=4 1/8" C=1 3/4" H=6 1/8" J=3 3/4"  
For No. 232 & 33 Track B=6 1/2" C=1 1/8" H=9 5/8" J=4 3/4"



## Bolt Spacings for Brackets

For Slidetite 435 and 1035 Seven to Ten-Door Sets

This data shows bolt spacings for use of architects, engineers, and contractors, so that steel lintels may be punched in the shop, or so that bolts may be built into concrete or masonry lintels.

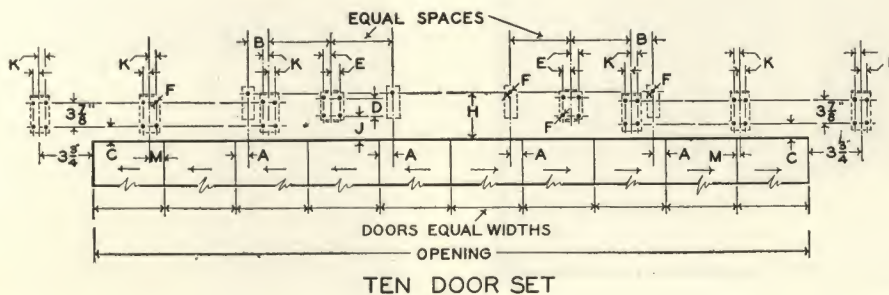
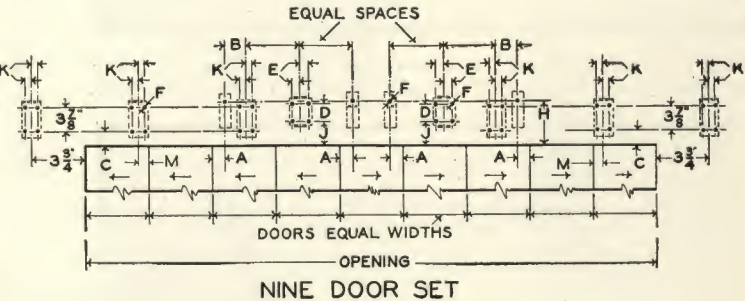
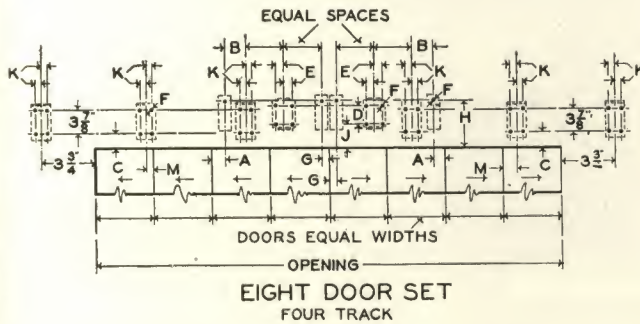
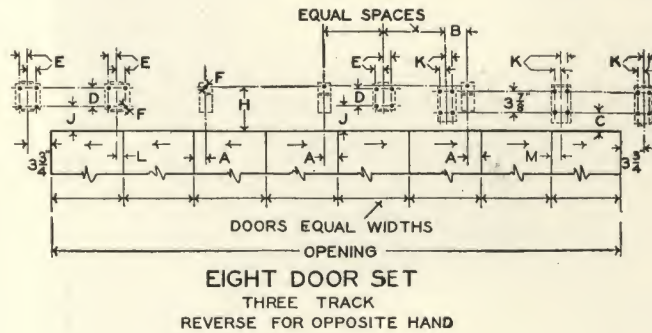
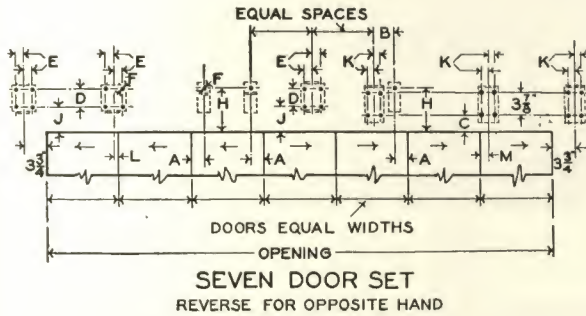


TABLE												
SIZE OF TRACK	A	B	C	D	E	F SIZE BOLT	G	H	J	K	L	M
31 & 35	2 $\frac{1}{8}$ "	3 $\frac{1}{2}$ "	3 $\frac{1}{4}$ "	3"	1 $\frac{3}{8}$ "	$\frac{3}{8}$ "	1 $\frac{1}{4}$ "	7 $\frac{1}{4}$ "	4 $\frac{3}{4}$ "	1"	1 $\frac{3}{4}$ "	1 $\frac{1}{2}$ "
232	2 $\frac{3}{4}$ "	4"	5 $\frac{1}{4}$ "	4 $\frac{7}{8}$ "	2 $\frac{13}{16}$ "	$\frac{1}{2}$ "	1 $\frac{5}{8}$ "	10"	5 $\frac{1}{2}$ "	1"	3 $\frac{1}{2}$ "	1 $\frac{3}{4}$ "
33	2 $\frac{5}{8}$ "	4 $\frac{1}{2}$ "	5 $\frac{5}{8}$ "	4 $\frac{7}{8}$ "	2 $\frac{13}{16}$ "	$\frac{1}{2}$ "	1 $\frac{3}{4}$ "	10 $\frac{1}{8}$ "	5 $\frac{5}{8}$ "	1 $\frac{1}{4}$ "	3 $\frac{1}{2}$ "	2"

NOTE:- WHEN WORKING IN MINIMUM HEADROOM  
 FOR NO. 31 & 35 TRACK - C=2 $\frac{1}{2}$ " H=6 $\frac{7}{8}$ " J=4"  
 " " 232 " - C=4 $\frac{1}{2}$ " H=9 $\frac{5}{8}$ " J=4 $\frac{3}{4}$ "  
 " " 33 " - C=5" H=9 $\frac{1}{4}$ " J=5"

A-1611



## *Slidetite "Ideal"* R-W No. 1135 Garage Door Hardware

Patented

The Last Word in Garage Door Hardware For 2 to 10 Doors in One Opening—For Doorways 8 to 30 Feet Wide



Fig. A-1612—Fine garages demand fine door hardware. As far as we know No. 1135 is by far the finest made anywhere in the world.



Fig. A-1613—The hangers roll on many large ball-bearings. The slightest touch and the doors open or close. A child of three can easily operate them!

In "Slidetite-Ideal" No. 1135 Equipment the well-known "Ideal" Ball-Bearing Hangers and track take the place of the regular No. 1035 as shown on pages 78 to 101 of this book. The equipment includes R-W No. 617 Adjustable Cremone Locking Bolts, R-W No. 1035 Offset Hinges. Installations may be made with regular No. 435 Butts in place of the No. 1035 Offset hinges if desired.

The door hanger unit of "Slidetite-Ideal" Equipment embodies, because of its scientific construction, a maximum of perfect principles. The door hangs from a wide rider-bar, rolling over steel balls, which in turn, roll along a carefully formed track groove. Friction is practically eliminated, and at the same time the rider-bar travels at twice the speed of the balls. A ball retainer keeps the steel balls always properly spaced.

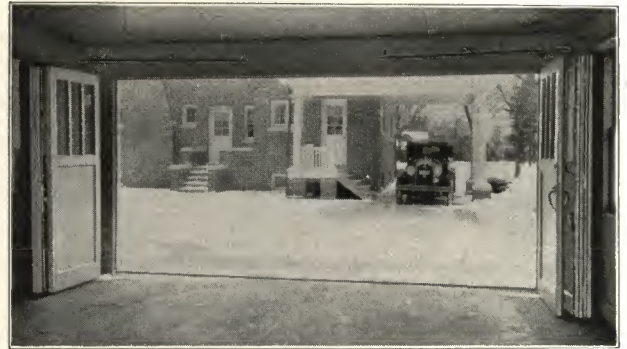


Fig. A-1614—The hardware itself is neat appearing and of a quality that will long outlast the garage.



Fig. A-1615—Artistic, yet strong offset hinges at the jambs permit the doors to be folded back clear of the opening.



Fig. A-1616—Sturdy door locking bolts keep the doors tightly closed and marauders out!

This ball bearing design provides a hanger which operates with exceptional smoothness and ease, and the combination of "Ideal" track with the "Slidetite" design, produces in "Slidetite-Ideal" hardware, an equipment that is perfection itself.

Fig. A-1617 which shows a close-up view of the hanger, track and bracket assembly, gives a clear idea of the construction and operation of this ball-bearing device. The track is a rectangular shaped tube made of very heavy gauge steel, drawn to form two parallel runways for steel balls, upon which the hanger rolls.

The general arrangement of the doors and the hardware coincide with that of the regular "Slidetite" No. 1035 sets as shown on pages 78 to 101.



## Slidetite "Ideal"

Patented

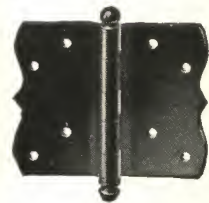
### R-W No. 1135 Garage Door Hardware



Fig. A-1617—"Slidetite-Ideal" hanger, track and bracket assembly, illustrating operation of rider bar and steel balls running in milled groove of track and also showing the relation of the center and intermediate adjustable brackets to the track.



119 Door Holder



No. 435 Surface Hinge  
2 1/2"x4"; 3 1/2"x5"



No. 435 Butt Hinge  
4"x4"; 5"x5"



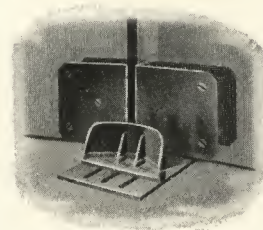
R-W No. 1035  
Heavy Offset Hinge with Surface Pintle  
18"x2 1/2"; 24"x2 1/2"; 30"x2 1/2"



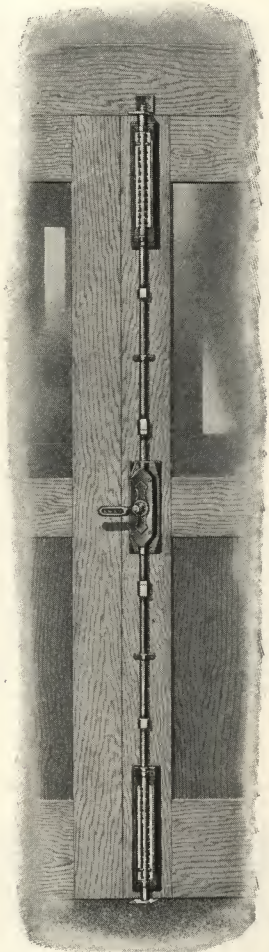
No. 435 Tie Rod



No. 81 Bow Handle



No. 271 Adjustable Floor Guide with No. 435-72 Steel Bumper Shoes.



R-W No. 617 Cremone Bolt

#### List Price of 3 to 10-Door Sets

Equipment Complete, Including Hangers, Track and Brackets, with all Bolts and Screws Necessary to Erect

Number of Doors and Size of Opening	Headroom Required Inches	Complete Sets With No. 035 Offset Hinges and 617 Adjustable Cremone Bolts		Hanger, Track and Bracket Assembly Only	
		List Price	Shipping Weight, lbs.	List Price	Shipping Weight, lbs.
2-Door Set—Opening not to exceed 8' wide.....	8 "	\$ 45.50	83	\$19.80	36
3-Door Set—Opening not to exceed 9' wide.....	8 "	41.50	76	15.80	28
4-Door Set, (3 doors one way)—Opening not to exceed 12' wide.....	10 3/4 "	52.00	98	15.80	28
4-Door Set, (2 doors each way)—Opening not to exceed 12' wide.....	8 "	71.00	146	32.00	56
5-Door Set—Opening not to exceed 15' wide.....	10 3/4 "	75.00	157	32.00	56
6-Door Set—Opening not to exceed 18' wide.....	10 3/4 "	85.50	165	32.00	56
7-Door Set—Opening not to exceed 21' wide.....	10 3/4 "	140.00	250	65.00	110
8-Door Set, (5 doors one way)—Opening not to exceed 24' wide.....	10 3/4 "	151.00	265	65.00	110
8-Door Set, (4 doors each way)—Opening not to exceed 24' wide.....	10 3/4 "	191.00	338	95.00	164
9-Door Set—Opening not to exceed 27' wide.....	10 3/4 "	193.00	340	95.00	164
10-Door Set—Opening not to exceed 30' wide.....	10 3/4 "	203.00	355	95.00	164

**Note**—Knob Lock, for entrance door not included in above sets (see page 472). Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra.

Direction Sheet showing erecting details furnished with hardware.

If Wicket Entrance Door is wanted, see page 164 for details and prices of hardware.

#### Directions for Ordering

**State**—Type and Style of Hardware. Width and height of opening. Style of Hinge wanted. Thickness of doors. Whether doors open inside or outside of garage and number of doors in opening. If three door or one track four door, specify whether right or left hand. Hand is determined by direction in which doors open when facing the doors from the working side.

**Example Order**—One set, five-door "Slidetite-Ideal" for opening 15 feet wide, 8 feet high, with No. 1035 Offset Hinge. Doors 1 3/4 inches thick.

Discount.....



## Slidetite

Patented

### R-W No. 1235 Garage Door Hardware

**Hardware Sets for Exceptionally Heavy Sliding Folding Doors More Than Three Feet Wide**  
(If hardware for still heavier doors is required see pages 237 and 244)

**T**HIS equipment handles two big doors hinged together, one door hinged to the jamb and supported at its outer edge by circular trolley track; the other door supported at its outer edge by a straight trolley track with compound curve, attached to front wall.

The doorway may be furnished with a pair of doors operating from one jamb, or a pair of doors operating from each jamb, as illustrated on the opposite page. Three weights of track, brackets and hangers give ample range of hardware to suit a variety of doorway sizes and weights of doors.

#### 2-Door Sets

For Doors that stand Parallel to Front Wall when Open

Catalog Number (Sets include all hardware necessary for erection.) (The doors themselves are of course not included.)	Each Door Weighing up to:	For 8-Foot Opening		For 10-Foot Opening		For 12-Foot Opening	
		Weight of Hardware	Price of Set	Weight of Hardware	Price of Set	Weight of Hardware	Price of Set
Set 1235-2P-31 for 31 Track	150 lbs.	113 lbs.	\$60.00	120 lbs.	\$69.00	130 lbs.	\$ 75.00
Set 1235-2P-232 for 232 Track	300 lbs.	146 lbs.	84.00	157 lbs.	96.00	171 lbs.	106.00
Set 1235-2P-33 for 33 Track	400 lbs.	172 lbs.	94.00	186 lbs.	107.00	203 lbs.	118.00

#### For Doors that stand at Right Angles to Front Wall when Open

Set 1235-2R-31 for 31 Track	150 lbs.	107 lbs.	\$50.00	113 lbs.	\$54.00	122 lbs.	\$58.00
Set 1235-2R-232 for 232 Track	300 lbs.	138 lbs.	68.00	147 lbs.	75.00	159 lbs.	80.00
Set 1235-2R-33 for 33 Track	400 lbs.	162 lbs.	75.00	174 lbs.	83.00	188 lbs.	90.00

**Note**—The above prices are based on using three hinges on each jamb. If four hinges are wanted add \$7.00 to each 2-door set.

#### 4-Door Sets (2 Doors folding each way)

For Doors that stand Parallel to Front Wall when Open

		16-ft. Opening		20-ft. Opening		24-ft. Opening	
		Weight of Hardware	Price of Set	Weight of Hardware	Price of Set	Weight of Hardware	Price of Set
Set 1235-4P-31 for 31 Track	150 lbs.	226 lbs.	\$120.00	240 lbs.	\$138.00	260 lbs.	\$150.00
Set 1235-4P-232 for 232 Track	300 lbs.	292 lbs.	168.00	314 lbs.	192.00	342 lbs.	212.00
Set 1235-4P-33 for 33 Track	400 lbs.	344 lbs.	188.00	372 lbs.	214.00	406 lbs.	236.00

#### For Doors that stand at Right Angles to Front Wall when Open

Set 1235-4R-31 for 31 Track	100 lbs.	214 lbs.	\$100.00	226 lbs.	\$108.00	244 lbs.	\$116.00
Set 1235-4R-232 for 232 Track	175 lbs.	276 lbs.	136.00	294 lbs.	150.00	318 lbs.	160.00
Set 1235-4R-33 for 33 Track	250 lbs.	324 lbs.	150.00	348 lbs.	166.00	376 lbs.	180.00

**Note**—Brackets should be spaced on 2-foot centers. **Headroom Required** for No. 31 track 7 1/4"; for No. 232 track 9 1/4"; for No. 33 track 9 1/2". State catalog number; width and height of opening; width, height and thickness of doors. Send sketch showing to which side doors fold and position of doors when open.

#### Directions for Ordering

**SPECIAL NOTICE**—The prices of the various items illustrated below are given for the convenience of such of our customers who carry R-W Straight Trolley Track; Hinges; Door Locking Bolts; Brackets, etc., in stock and who wish to make up their own 1235 Sets.



Curved Track

31-CT Curved Track, per ft. .... \$1.20  
232-CT Curved Track, per ft. .... 1.80  
33-CT Curved Track, per ft. .... 2.00



CURVE No 1

#### Compound Curved Trolley Track

31-CC for 31 Track, each ..... \$ 8.00  
232-CC for 232 Track, each ..... 9.00  
33-CC for 33 Track, each ..... 10.00



Knuckle Jointed Hangers  
For Curved Track

435-11-K.J. for 31 Track, each.. \$6.00  
435-13-K.J. for 232 Track, each.. 9.00  
435-12-K.J. for 33 Track, each.. 9.50



Center Brackets

1235 x 31 Center Bracket, each..... \$1.50  
1235 x 232 Center Bracket, each..... 2.30  
1235 x 33 Center Bracket, each..... 2.70



End Brackets

1235 x 31 End Bracket, each..... \$1.50  
1235 x 232 End Bracket, each..... 2.30  
1235 x 33 End Bracket, each..... 2.70

Discount.....



## *Slidetite* R-W No. 1235 Garage Door Hardware (Continued)

Patented



Fig. A-1618—One Pair of Doors Partly Open

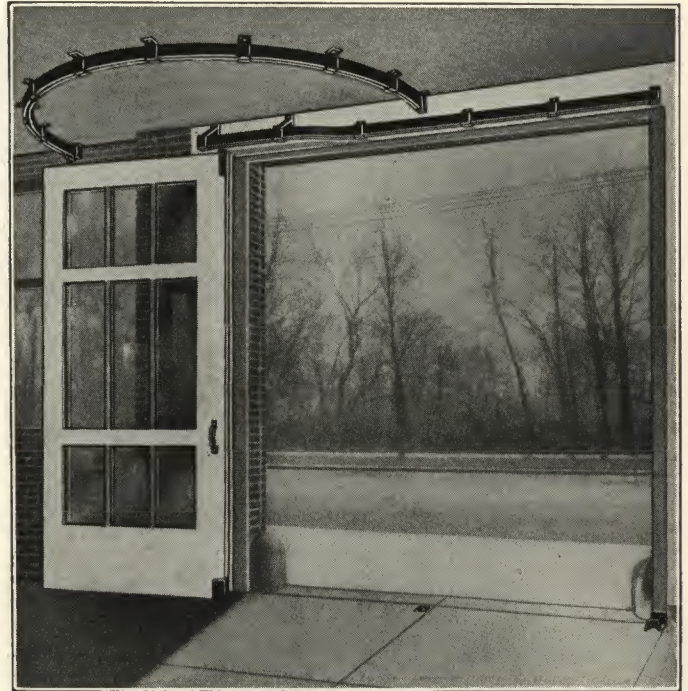


Fig. A-1619—Doors over 10 ft. high require four Butt Hinges

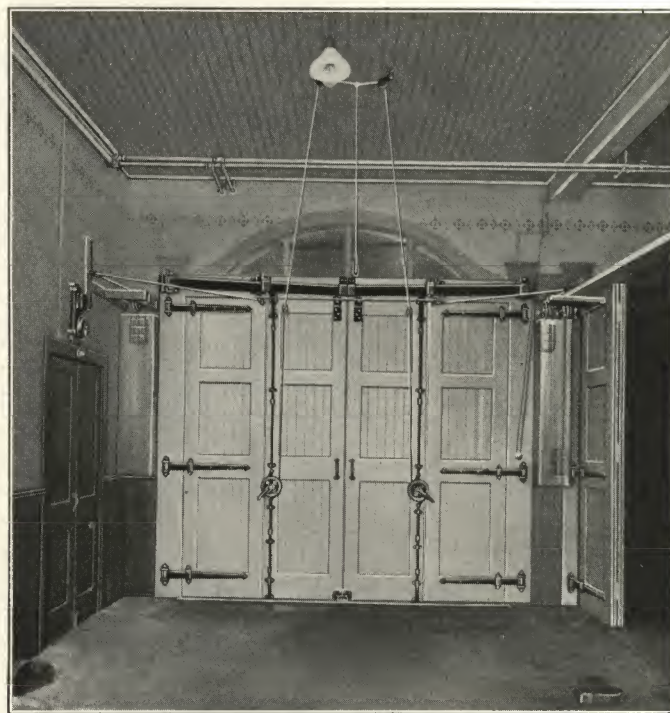
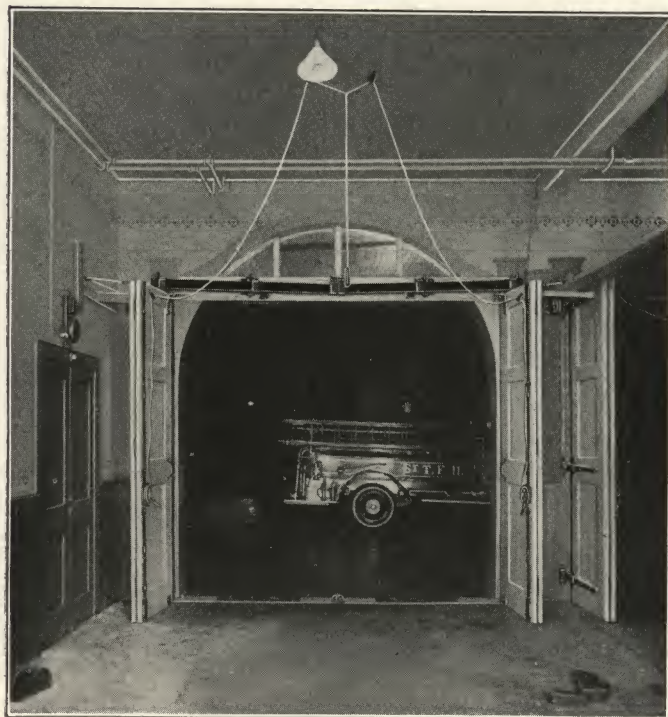
**Desirable for Public or Industrial Garages Where Extra Heavy or Extra Wide Doors are Advisable**



Fig. A-1620—A Pair of Heavy Doors Operating from Each Jamb  
**Strong, Sturdy, Easy Operating Equipment**



## R-W No. 1335 Fire Station Door Hardware



The R-W No. 1335 Fire Station Door Hardware is designed for quick action to eliminate loss of time when fire apparatus is leaving the station. It is only necessary for the driver to pull the cord which is conveniently located above the driver's seat, as shown in the illustration. The locking bolts are immediately released and the doors are drawn open by the weights or closing springs.

Four doors are required for each opening mounted with R-W 1035 Slidetite hinges, hangers and tracks as illustrated on page 87.

The locking bolts are similar to the No. 517, shown on page 476, except that special sheaves and levers are attached to the operating handle by which the bolts can be thrown by a pull on the cord. See page 477.

Two extra pulleys are furnished with each set, to be used in carrying the weights to the front wall in cases where a side wall is not available for attaching pulleys. In such cases one pulley for each door is suspended from the ceiling and another is attached to the front wall. If it is desired that the doors be opened by means of strong closing springs instead of by weights, then the weights are omitted and two closing springs, one for each side of the opening are furnished.

All hardware is furnished complete as shown in the illustration, unless otherwise specified. In ordering, state width and height of opening, thickness of doors, distance from top of opening to ceiling, distance from jambs to side wall, if any, and whether weights or closing springs are desired.

### List Price With Weights

No. 1335 x 31 Hardware complete using No. 31 Track, weight 152 lbs.....	\$ 80.00
No. 1335 x 232 Hardware complete using No. 232 Track, weight 213 lbs.....	100.00
No. 1335 x 33 Hardware complete using No. 33 Track, weight 232 lbs.....	120.00

### List Price With Closing Springs

No. 1335 x 31 Hardware complete using No. 31 Track, weight 137 lbs.....	140.00
No. 1335 x 232 Hardware complete using No. 232 Track, weight 198 lbs.....	160.00
No. 1335 x 33 Hardware complete using No. 33 Track, weight 217 lbs.....	170.00

### List Price of Closing Springs Only

No. 1335 Closing Springs, weight per pair, 25 lbs., per pair.....	70.00
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Discount.....



## R-W No. 1435

# Slidetite

Patented

## Garage Door Equipment

2- to 6-Door Sets

Packed in Box Including Track



Fig. A-1621—Illustration of a 6-Door Set of Hardware for In-Opening Doors

These sets consist of our regular No. 435x31 "Slidetite" hardware, but the No. 31 Track is included right in the box, making them complete. Each piece of track is 42" long, except for the 2-Door set, the tracks of which are 36 inches long, and a No. 435-I Intermediate Bracket should be placed where the two sections of track come together. Our new style bracket so effectively grips and clamps the ends of track that there is positively no obstruction at the joint.

When ordering please state type and style of hardware, width and height of doors and kind of Locking Bolts desired. These sets are only furnished for No. 31 Trolley Track.

Best results are obtained by using doors not more than 3 feet wide. Wider doors require additional track and brackets. Doors must be of equal width.

### Locking Bolt Combinations

When the letter **A** is used in any of the catalog numbers as shown below it means that No. 514 Spring Top Locking Bolts, and No. 524 Cane Bottom Locking Bolts are furnished with the sets of hardware.

When the letter **B** is used it means that No. 517 Cremona Locking Bolts (adjustable for doors up to 9 feet high) are furnished with each set of hardware. If doors are over 9 feet high order extra 18 inch sections of the bolt which list at 80 cents each.

If other locking bolts than the above are desired see last paragraph on page 79.

These complete sets contain all equipment, bolts, screws, and etc., necessary to erect.

### 2-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on the jamb.

Set 1435-A2-31.....	Weight 54 lbs.	Price.....	\$13.50
Set 1435-B2-31.....	Weight 61 lbs.	Price.....	17.10

For doors opening out with butt hinges on the jamb.

Set O1435-A2-31.....	Weight 51 lbs.	Price.....	13.10
Set O1435-B2-31.....	Weight 58 lbs.	Price.....	16.70

### 3-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with butts on single door.

Set 1435-A3-31.....	Weight 54 lbs.	Price.....	\$14.00
Set 1435-B3-31.....	Weight 61 lbs.	Price.....	17.60

For doors opening in with offset hinges on both jambs.

Set 1435-A3-31-311.....	Weight 57 lbs.	Price.....	15.50
Set 1435-B3-31-311.....	Weight 64 lbs.	Price.....	19.10

For doors opening out with butt hinges on both jambs.

Set O1435-A3-31.....	Weight 52 lbs.	Price.....	14.00
Set O1435-B3-31.....	Weight 59 lbs.	Price.....	19.10

### 4-Door Sets Using No. 31 Track (Three Doors Folding One Way)

For doors weighing up to 100 lbs. each

For doors opening in with butts on single door.

Set 1435-A4-31.....	Weight 61 lbs.	Price.....	\$16.00
Set 1435-B4-31.....	Weight 75 lbs.	Price.....	22.85

For doors opening in with offset hinges on both jambs.

Set 1435-A4-31-311.....	Weight 78 lbs.	Price.....	17.50
Set 1435-B4-31-311.....	Weight 78 lbs.	Price.....	24.35

For doors opening out with butts on both jambs.

Set O1435-A4-31.....	Weight 59 lbs.	Price.....	16.00
Set O1435-B4-31.....	Weight 73 lbs.	Price.....	22.85

### 4-Door Sets Using No. 31 Track (Two Doors Folding Each Way)

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1435-A4½-31.....	Weight 89 lbs.	Price.....	\$21.00
Set 1435-B4½-31.....	Weight 102 lbs.	Price.....	27.20

For doors opening out with butt hinges on both jambs.

Set O1435-A4½-31.....	Weight 85 lbs.	Price.....	21.00
Set O1435-B4½-31.....	Weight 98 lbs.	Price.....	27.20

### 5-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1435-A5-31.....	Weight 95 lbs.	Price.....	\$24.50
Set 1435-B5-31.....	Weight 103 lbs.	Price.....	30.20

For doors opening out with butt hinges on both jambs.

Set O1435-A5-31.....	Weight 91 lbs.	Price.....	24.50
Set O1435-B5-31.....	Weight 104 lbs.	Price.....	30.20

### 6-Door Sets Using No. 31 Track

For doors weighing up to 100 lbs. each

For doors opening in with offset hinges on both jambs.

Set 1435-A6-31.....	Weight 100 lbs.	Price.....	\$28.00
Set 1435-B6-31.....	Weight 118 lbs.	Price.....	37.80

For doors opening out with butt hinges on both jambs.

Set O1435-A6-31.....	Weight 96 lbs.	Price.....	28.00
Set O1435-B6-31.....	Weight 114 lbs.	Price.....	37.80

Discount.....

### SPECIAL NOTICE

Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, Expansion Shields should be ordered extra.

Interior Elevation with parts named shown on page 104.

Headroom Required for the above various sets same as for the corresponding 435 Sets shown on preceding pages.

Location of Bolt Holes and Bracket Spacing shown on page 108.

Lock for Entrance Door not included in sets. See page 472.

If No. 419 Latch for Entrance Door is desired add \$1.00 to the above list prices (Page 463).

If Heavier Doors than above are required, see: 435 by 232 or 33 track sets; 1035 by 232 or 33 track sets; or No. 434 Hardware.

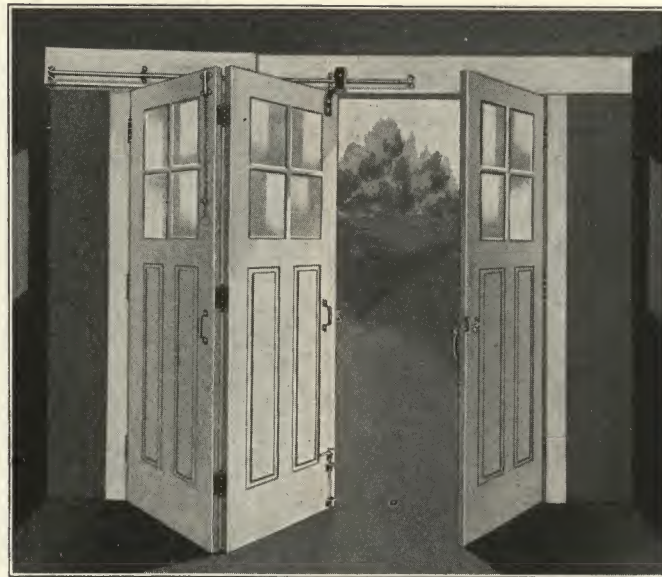
### Directions for Ordering Complete Sets

State—Number of sets desired, catalog number, width and height of opening and thickness of door.

Example—2 sets No. 1435-A3-31 for opening 9' wide, 8' high, doors 1¾" thick.



## R-W No. 336 and No. 1336 Round Track Garage Door Equipment



For 3,  
4 and 6  
Doors

For 3,  
4 and 6  
Doors

This set of hardware is designed for a three-door opening and will operate satisfactorily in an opening 7' to 9' in width. The single door which is hinged to the jamb is used as the entrance door. This hardware should be applied on the inside of the garage and the doors when open, allow a clearance practically the entire width of the doorway from jamb to jamb. Two of the doors slide and fold to one side of the opening, and are supported and guided by the hanger which runs on the round track which is attached to the doorway casing.

The equipment is easy to install and consists of the following hardware:

- 1 only No. 336 Hanger
- 7' No. 542-A Track
- 2 End Brackets
- 3 Center Brackets

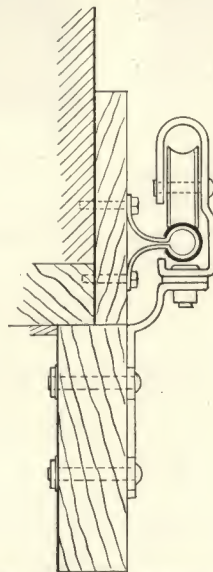


Fig. A-1622—Notice projection which keeps wheel from jumping the track.

- 1 No. 436 Latch
- 1 No. 514-1 Bolt
- 1 No. 524-0 Bolt
- 2 No. 91-Bow Handles
- 4½ Pair Butt Hinges
- Screws and Bolts for Attaching.

If this hardware is desired for a six-door opening, buy two sets of the regular three-door hardware and slide and fold three of the doors to each jamb. Two sets of hardware may also be used on a four door opening, in which case two doors should slide and fold to each jamb.

### List Price

One set R-W No. 336 Garage Door Equipment,  
for 3 doors, weight 15½ lbs. complete. . . . . \$7.00

### Discount

**Note**—This hardware is also packed in complete sets, including track in a wood box. Weight, 25 lbs. When packed in this manner, it is known as No. 1336 hardware and the track is furnished in four pieces, each 21" long.

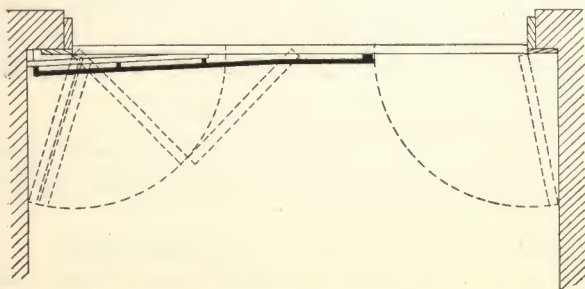


Fig. A-1623—Floor plan of three door set

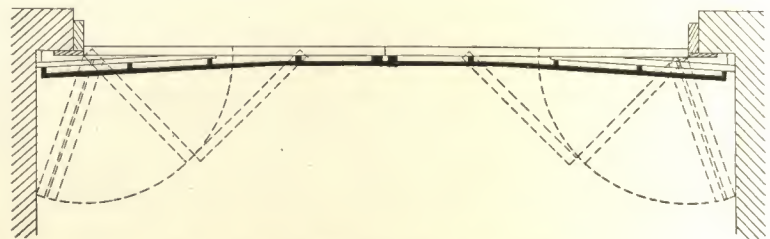


Fig. A-1624—Floor plan of four door set



R-W No. 436

## Flat Track Garage Door Equipment

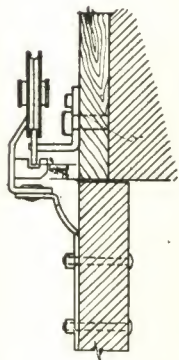


Fig. A-1625—Notice attachment that keeps wheel from jumping the track



Fig. A-1626—Doorway equipped with No. 436 Fixtures

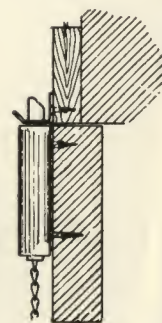


Fig. A-1627—Cross section of 514 Top Bolt showing application of bolt and keeper

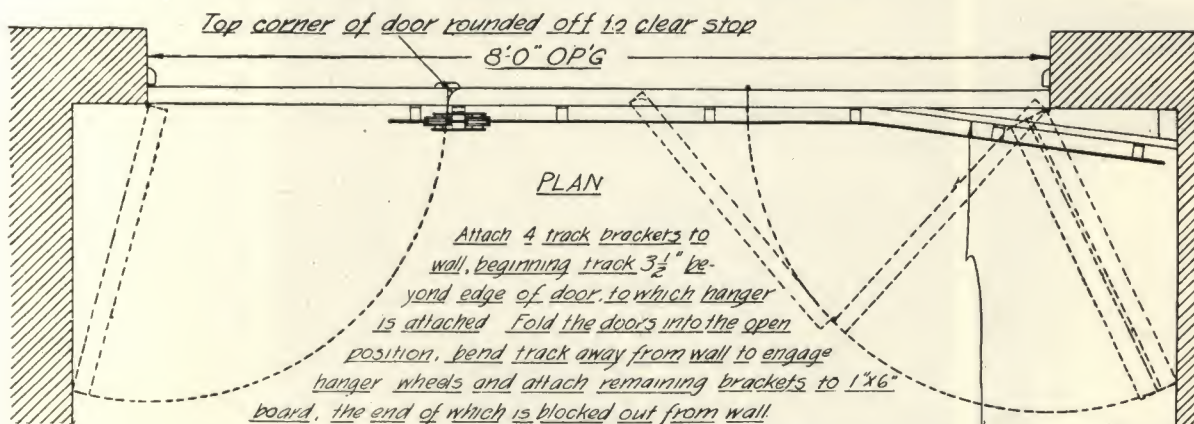


Fig. A-1628—Floor plan of three door set

This equipment will handle any three-door opening which is not more than nine feet in width. The single door which is hinged to the jamb can be used as an entrance door, thus saving the expense of having a separate entrance door in one of the side walls. The doors fit perfectly tight

and are weather-proof. The hanger and track, being installed on the inside of the garage, are not subject to weather, bird's nests, etc., and operate easily and quietly. No snow and ice has to be shoveled before the garage doors can be opened.

### A Three Door Set of Fixtures Contains the Following Hardware:

1 only No. 436 Hanger.  
 1 piece Flat Track with Brackets (7')  
 4½ Pairs No. 436 Butt Hinges  
 1 No. 514 Top Bolt  
 1 No. 514 Bottom Bolt

1 No. 436 Latch  
 2 No. 436 Padlock Plates  
 2 No. 71-1 Bow Handles  
 Screws and Bolts for attaching.

### List Price

No. 426 Set, Weight 20 pounds, complete.....\$7.70

Note—If a 6-Door Outfit is desired use 2 sets of the above.

Discount.....



*Slide Side*

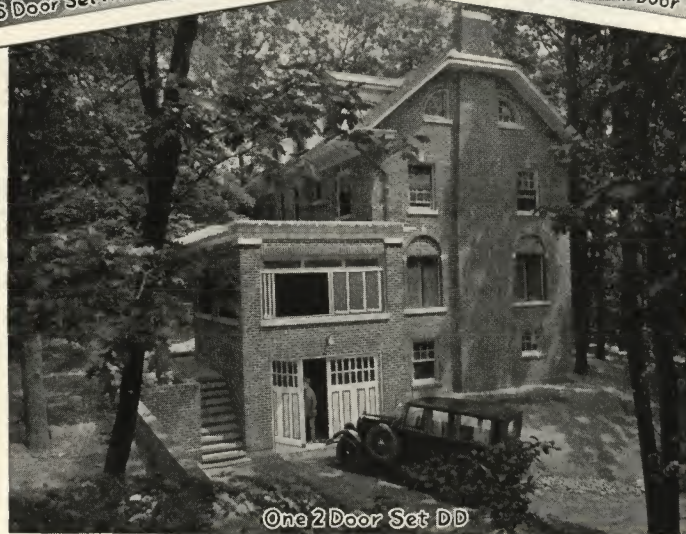
GARAGES



One 6 Door Set KK



One 4 Door Set HH



One 2 Door Set DD



Two 3 Door Sets JJ



One 2 Door Set GG

Fig. A-1629



## SlidaSide Right Angle Garage Door Hardware

Patented

R-W No. 235



Fig. A-1630—Exterior view of doorway equipped with single door, operating on SlidaSide "AA" Hardware. Door in partly open position.

In a garage where front wall space is limited and where it is desired to secure maximum use of the floor space, SlidaSide R-W No. 235 Garage Door Equipment makes an unusually satisfactory installation.

Even very heavy doors operate lightly on SlidaSide hardware.

We make sets to accommodate doors of various kinds in a wide range of weights and sizes, and in various combinations, as shown on this and the following pages.

SlidaSide doors when open stand along the side wall at right angles to the opening, inside the building and require a negligible amount of space for their operation in swinging around the corner.

The hardware is adaptable to various doorway conditions and arrangements, including—Single Doors with space between the jamb and the side walls; Double Doors with space between the jambs and side walls; Single and Double doors with jambs adjacent to the side walls; Pair of Doors Hinged Together for opening with space between the jamb and side wall. Three Doors Hinged Together and sliding to one side; Six Doors, three of which are hinged together sliding to the right, three of which are hinged together sliding to the left.

Diagrams shown on this page give a graphic idea of the line of travel of doors of various widths and the space required for their operation around the corner.

### Doorway Clearance Diagrams

Each of the square spaces in the diagrams represent one foot. Solid lines indicate the line of travel of doors on straight tracks as sets A and B, pages 122, 123. Dotted lines indicate the line of travel of doors on curved tracks as sets E, F, G, H, J and K, pages 126 to 131. Diagrams are laid out for doors from 3 to 10 feet wide. The clearance lines are based on the width of each door and not on the width of the opening in the case of sets G, H, J, and K, where several doors are hinged together.

**Example:** A door 8 feet wide on straight track would require in being opened, a space of  $6\frac{1}{2}$  feet from side wall at a point one foot from the front wall, 4 feet 9 inches from side wall at a point 2 feet from the front wall, 3 feet 6 inches from side wall at a point 3 feet from front wall: 2 feet 5 inches from side wall at a point 4 feet from front wall. 1 foot 7 inches from side wall at a point 5 feet from front wall and 10 inches from side wall at a point 6 feet from front wall.

Fig. A-1631—Doorway with 2 foot space from jamb to side wall, requiring hardware sets Nos. 235-A, B, E, F, G, H, J or K

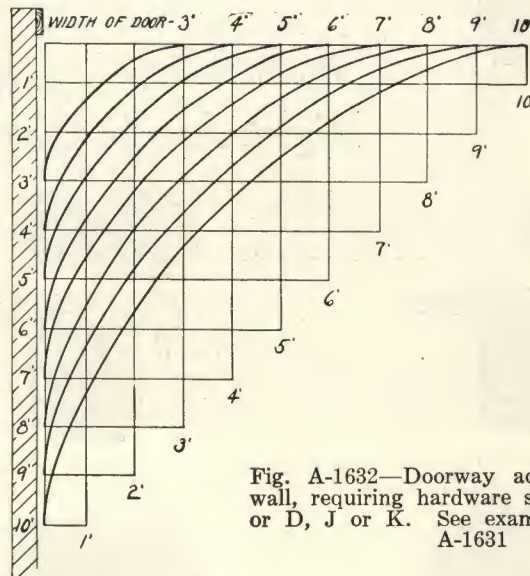
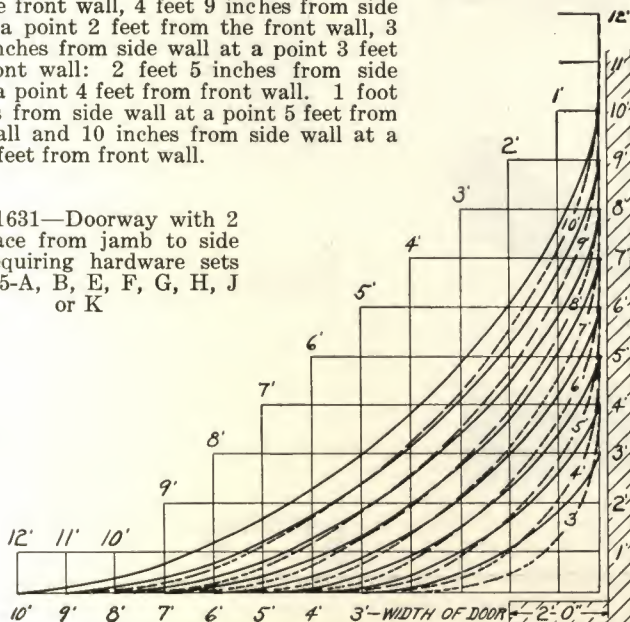


Fig. A-1632—Doorway adjacent to side wall, requiring hardware sets Nos. 235-C or D, J or K. See example above Fig. A-1631

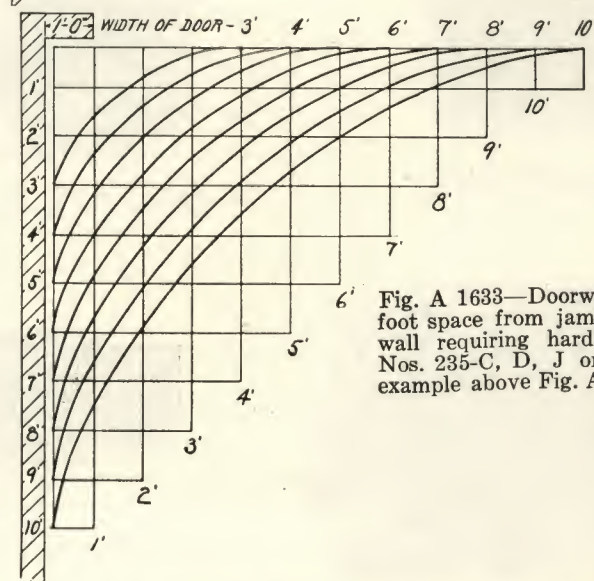
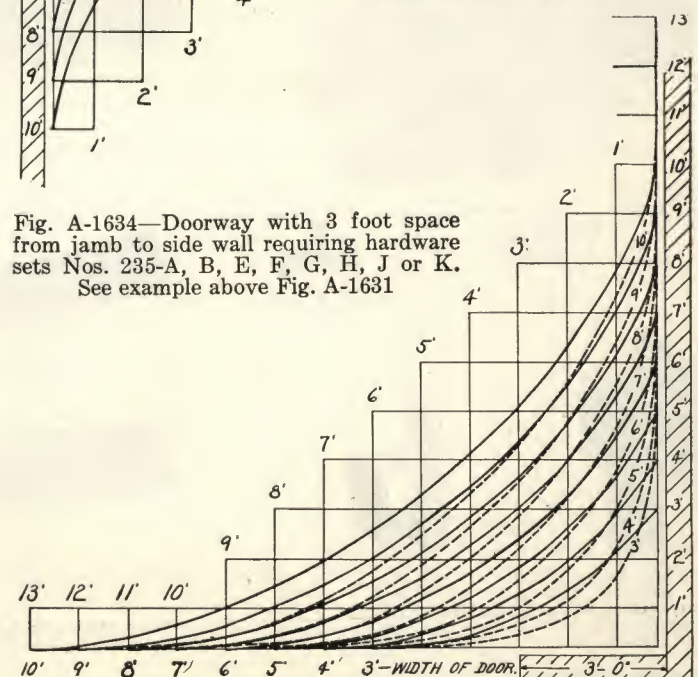


Fig. A-1633—Doorway with 1 foot space from jamb to side, wall requiring hardware sets Nos. 235-C, D, J or K. See example above Fig. A-1631.

Fig. A-1634—Doorway with 3 foot space from jamb to side wall requiring hardware sets Nos. 235-A, B, E, F, G, H, J or K. See example above Fig. A-1631

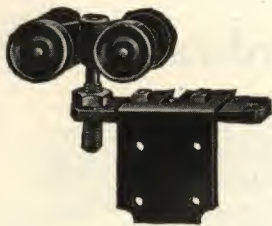




# Richards-Wilcox

## SlidaSide

Patented



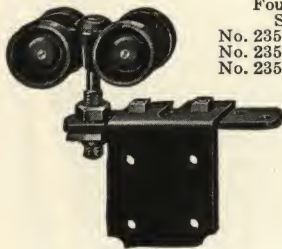
Four-Wheel Hanger  
\*No. 235-5 for No. 31 Track  
\*No. 235-9 for No. 232 Track  
\*No. 235-6 for No. 33 Track



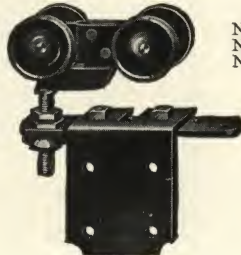
Two-Wheel Hanger  
No. 235-3 for No. 31 Track  
No. 235-8 for No. 232 Track  
No. 235-4 for No. 33 Track

### R-W No. 235 Right Angle Garage Door Hardware

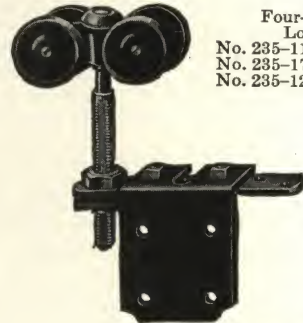
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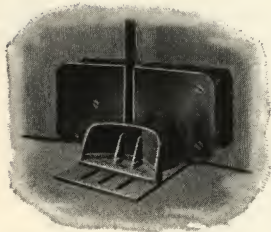
Four-Wheel Hanger  
Short Pendant  
No. 235-1 for No. 31 Track  
No. 235-7 for No. 232 Track  
No. 235-2 for No. 33 Track



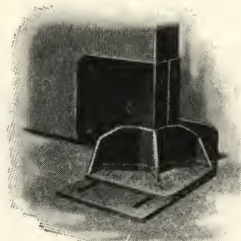
Four-Wheel Hanger  
Long Pendant  
No. 235-23 for No. 31 Track  
No. 235-28 for No. 232 Track  
No. 235-24 for No. 33 Track



Four-Wheel Hanger  
Long Pendant  
No. 235-11 for No. 31 Track  
No. 235-17 for No. 232 Track  
No. 235-12 for No. 33 Track



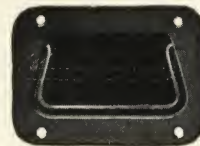
Center Floor Guide No. 271, and  
Bumper Shoes No. 435-72



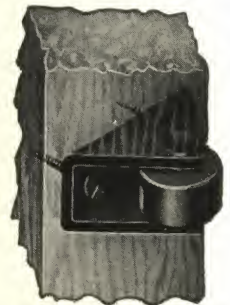
Floor End Stop No. 272 and  
Bumper Shoes No. 435-72



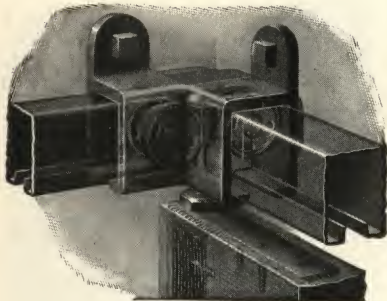
Stay Roller  
No. 55



Flush Drop  
Handle No. 170



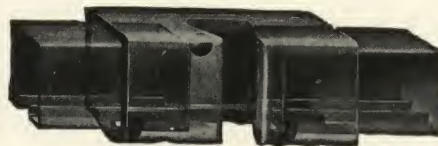
No. 635 Corner Guide Roller



Corner Bracket  
No. 235x31-C  
No. 235x232-C  
No. 235x33-C



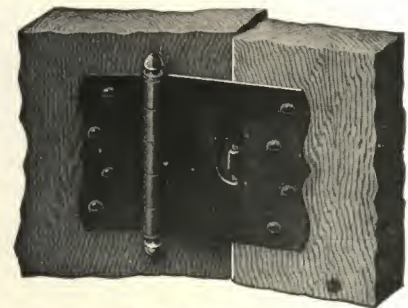
Center Bracket  
No. 242-A



Slot Bracket  
No. 235x31-S  
No. 235x232-S  
No. 235x33-S



Curved Track  
Nos. 31, 232 and 33



Surface Hinge  
No. 635



Center Stop  
Bracket  
No. 12x31  
No. 12x232  
No. 12x33



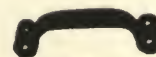
Center  
Bracket  
No. 1x31  
No. 1x232  
No. 1x33



Straight Track  
Nos. 31, 232 and 33



Door Holder  
No. 119



Bow Handle  
No. 81



End Bracket  
No. 2x31  
No. 2x232  
No. 2x33

Note—\*Knuckle Joint Hangers to  
run in curved track.



## SlidaSide

Patented

R-W No. 235

### Right Angle Garage Door Hardware



Fig. A-1635—Interior view of garage doorway equipped with No. 235 "BB" Hardware. Notice Wicket Door in Left Hand Door

#### Hanger Dimensions

Hanger No.	For Track No.	Diameter Wheels Inches	Bearings in Hanger	Pendant	Top of Door to Bottom of Front Track		Clearance Required Above Bottom of Front Track	
					Minimum Inches	Maximum Inches	Side Wall Bracket, Inches	Ceiling Bracket Inches
235-1	31	2 1/8	Roller	Short	1 1/4	2	7	6
235-3	31	2 1/8	Ball	Short	1 1/4	2 1/8	7	6
*235-5	31	2 1/8	Ball	Short	1 3/8	2 3/8	4 5/8	3 1/2
235-11	31	2 1/8	Roller	Long	1 1/2	2 1/2	7	6
235-23	31	2 1/8	Roller	Short	1 1/2	2 1/2	7 1/8	7 1/8
235-7	232	3	Roller	Short	1 1/2	2 1/2	9 1/8	7 3/8
235-8	232	3	Roller	Short	1 1/4	2 1/4	9 1/8	7 1/8
*235-9	232	3	Ball	Short	1 3/4	3 1/4	5 5/8	4 5/8
235-17	232	3	Roller	Long	1 3/4	3 1/4	9 1/8	7 3/8
235-28	232	3	Roller	Short	1 3/4	3	9 1/8	7 3/8
235-2	33	3	Roller	Short	1 1/2	2 1/2	9 1/8	8 1/4
235-4	33	3	Roller	Short	1 1/2	2 1/2	9 1/2	8 1/4
*235-6	33	3	Ball	Short	1 3/4	3 1/4	6	4 3/4
235-12	33	3	Roller	Long	1 3/4	3	9 1/8	8 1/4
235-24	33	3	Roller	Short	1 3/4	3	9 1/2	8 1/4

\*Knuckle Joint Hanger to run in curved track.

#### Detail of Hardware and List Price of Parts

DESCRIPTION	Light Weight Hardware using No. 31 Track For Doors Weighing up to 300 lbs. each			Medium Weight Hardware using No. 232 Track For Doors Weighing Between 300-500 lbs. each			Heavy Weight Hardware using No. 33 Track For Doors Weighing Between 500-800 lbs. each		
	Catalog Number	List Price	Shipping Wt., lbs.	Catalog Number	List Price	Shipping Wt., lbs.	Catalog Number	List Price	Shipping Wt., lbs.
Hangers (page 120), each.....	235-1	\$2.50	3 3/8	235-7	\$3.50	7	235-2	\$4.00	7 3/8
Hangers (page 120), each.....	*235-3	2.50	2 3/8	235-8	3.50	5	235-4	4.00	6
Hangers (page 120), each.....	*235-5	3.50	3 3/8	*235-9	4.50	8	*235-6	5.00	9 3/8
Hangers (page 120), each.....	235-11	2.50	4	235-17	3.50	7	235-12	4.00	8
Hangers (page 120), each.....	235-23	2.50	4	235-28	3.50	7 1/2	235-24	4.00	8
Brackets, Corner (page 120), each.....	235x31-C	2.00	7 3/8	235x232-C	3.00	12 1/2	235x33-C	3.00	17
Brackets, End (page 120), each.....	235-2x31	.21	1 1/4	235-2x232	.45	3	235-2x33	.55	4
Brackets, Center (page 120), each.....	235-1x31	.21	1 1/4	235-1x232	.45	3	235-1x33	.75	4
Brackets, Center Stop (page 120), each.....	235-12x31	.66	3	235-12x232	1.05	5 1/4	235-12x33	1.35	7 1/2
Center Brackets, each.....	242-A	.08	1 1/8	242-A	.08	1 1/8	242-A	.08	1 1/8
Brackets, Slot (page 120), each.....	235x31-S	2.00	6	235x232-S	3.00	8	235x33-S	3.00	8 3/8
Trolley Track, Straight (page 120), per foot.....	31	.25	1 3/8	232	.45	2 3/4	33	.58	4
Trolley Track, Curved (page 120), per foot.....	31	1.60	1 3/8	232	2.40	2 3/4	33	2.70	4
Hinges, Surface (page 120), per pair.....	635-4"	1.20	2	635-5"	1.80	2	635-5"	1.80	2
Flush Drop Handles (page 120), each.....	170	.35	1 1/2	170	.35	1 1/2	170	.35	1 1/2
Bow Handles (page 120), each.....	81-1	.27	1 1/2	81-2	.45	1	81-2	.45	1
Center Floor Guides (page 120) each.....	271	.90	3	271	.90	3 1/4	271	.90	3
Floor End Stops (page 120), each.....	272	.70	2 1/2	272	.70	2 1/2	272	.70	2 1/2
Bumper Shoes (page 120), each.....	435-72	.12	1	435-72	.12	1	435-72	.12	1
Stay Rollers (page 120), each.....	55	.10	1 1/4	55	.10	1 1/4	55	.10	1 1/4
Door Holder (page 120), each.....	119	.19	1 1/4	119	.19	1 1/4	119	.19	1 1/4

\*This is a ball bearing-hanger. Hangers not starred are roller-bearing.

Discount.....

SlidaSide Sets are shown on the following pages



## SlidaSide

Patented

### R-W No. 235 Right Angle Garage Door Hardware

"A" and "AA" Single Door Sets

For opening with wall space between jamb and side wall, using Straight Track and No. 235 Slot Bracket.

Headroom required above Top of Door, not Opening. See "A" of Fig. A-1637.

For No. 31 Track... 9"  
For No. 232 Track... 11 $\frac{3}{8}$ "  
For No. 33 Track... 11 $\frac{1}{4}$ "

Headroom may be decreased 1" on No. 31 Track Equipment or 1 $\frac{1}{4}$ " on Nos. 232 or 33 Track Equipments by using No. 7 style brackets for side track instead of No. 1 style brackets. A further reduction of  $\frac{5}{8}$ " can be secured by sinking the hanger aprons into the top of the door.

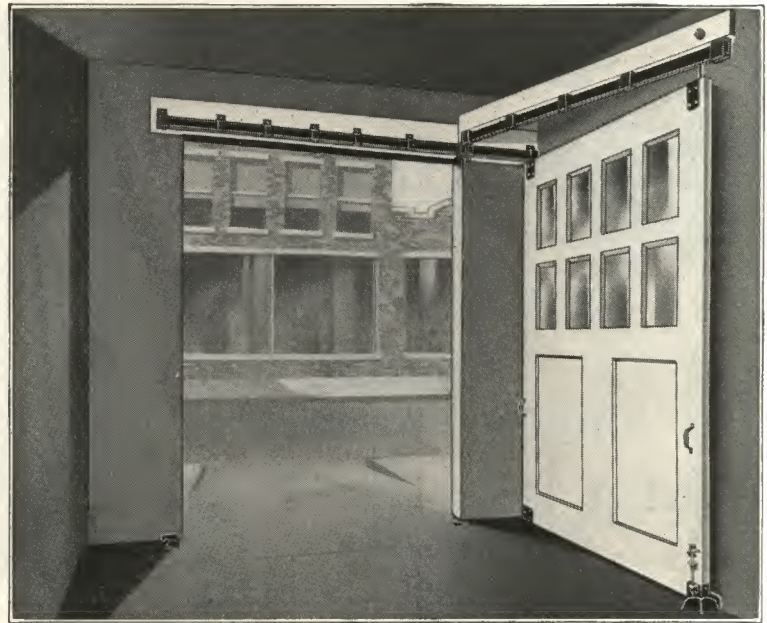


Fig. A-1636—Interior View. Door Wide Open and Parallel with Side Wall

#### List Prices for Complete "AA" Sets

These prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect,  Plus Locking Bolts as follows:  "AA" Sets	Light Weight Hdw. using No. 31 Track For Doors Weighing up to 200 lbs. each 1 $\frac{3}{4}$ " to 2 $\frac{1}{4}$ " thick		Medium Weight Hdw. using No. 232 Track For Doors Weighing Between 200-350 lbs. each, 1 $\frac{3}{4}$ " to 2 $\frac{1}{2}$ " thick		Heavy Weight Hdw. using No. 33 Track For Doors Weighing Between 350-600 lbs. each, 1 $\frac{3}{4}$ " to 2 $\frac{3}{4}$ " thick	
	List Price	Shipping Wt., lbs.	List Price	Shipping Wt., lbs.	List Price	Shipping Wt., lbs.
Set AA-1, to lock door from inside only, including 1 No. 524 Cane Bottom Bolt (page 473)						
Opening up to 8' wide.....	\$20.00	72	\$31.50	107	\$36.60	132
Opening 8'1"-9' wide.....	21.00	75	32.75	112	38.35	138
Opening 9'1"-10' wide.....	22.00	79	34.00	117	40.10	144
Set AA-3, to lock door from inside only, including 1 No. 516 Door Bolt (page 465). Minimum lap of door over jamb is 2 inches.						
Opening up to 8' wide.....	20.50	72	32.00	107	37.10	132
Opening 8'1"-9' wide.....	21.50	75	33.25	112	38.85	138
Opening 9'1"-10' wide.....	22.50	79	34.50	117	40.60	144
Set AA-4, to lock door from outside only, including 1 No. 525 Door Lock, (page 469). Minimum lap of door over jamb is 1 $\frac{1}{2}$ inches.						
Opening up to 8' wide.....	22.00	73	32.50	107	37.60	132
Opening 8'1"-9' wide.....	23.00	76	33.75	112	39.35	138
Opening 9'1"-10' wide.....	24.00	80	35.00	117	41.10	144

Note—Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. Direction Sheet showing erecting details furnished with hardware. If Wicket Entrance Door is wanted, see page 164 for details and prices of hardware.

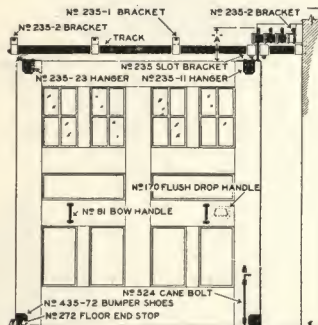


Fig. A-1637—Interior elevation showing proper location and names of 235 Parts for Single Door Set AA-1, including one 524 Cane Bottom Bolt

#### Directions for Ordering Complete Sets

State—Designation of set and number of track. Width of opening. Thickness of door. Distance door laps on jamb. Distance from jamb to side wall.

Always send sketch of floor plan with above dimensions inserted.

#### Example Order of Complete Sets

One Set SlidaSide AA-1 for No. 31 Track

Opening 8 feet wide. Door 1 $\frac{3}{4}$  inches thick. Door laps on jamb 2 inches. Jamb to side wall 24 inches.

Location of Bolt Holes and Bracket Spacings are given on page 132.

#### Single Door "A" Short Sets

Packed in One Box Complete Except that Track, Locks and Locking Bolts are Omitted Includes Brackets for opening 10 feet wide. For opening with wall space between jamb and side wall.

For the convenience of dealers who carry our trolley track, locks and locking bolts in stock, we are in a position to furnish Short Sets at the following prices  
For No. 31 Track, per set \$13.00. Shipping weight 38 pounds.  
For No. 232 Track, per set 18.00. Shipping weight 53 pounds.  
For No. 33 Track, per set \$20.00. Shipping weight 72 pounds.

Example Order—1 set SlidaSide "A" for No. 31 Track.

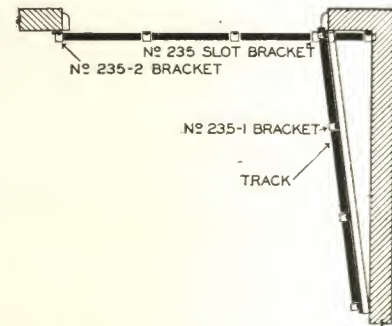


Fig. A-1638—Plan of Tracks

Discount.....



## SlidaSide

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### R-W No. 235 Right Angle Garage Door Hardware

#### "B" and "BB" Double Door Sets

For Opening with Double Doors and Wall Space Between Jamb and Side Walls, with Straight Track and No. 235 Slot Brackets

Headroom required above Top of Door, not Opening  
See "A" of Fig. A-1640

For No. 31 Track	9 inches
For No. 232 Track	11 $\frac{3}{8}$ inches
For No. 33 Track	11 $\frac{3}{4}$ inches

Headroom may be decreased 1" on No. 31 Track Equipment or 1 $\frac{1}{4}$ " on Nos. 232 or 33 Track Equipments by using No. 7 style brackets for side track instead of No. 1 style brackets. A further reduction of  $\frac{5}{8}$ " can be secured by sinking the hanger aprons into the top of the door.



Fig. A-1639—Interior of garage doorway having double doors equipped with SlidaSide BB hardware. One car garage. Note wicket entrance door.

Location of Bolt Holes and Bracket Spacings are given on page 132.

#### List Price for Complete "BB" Sets

These prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect

##### Plus Locking Bolts as follows:

##### "BB" Sets

Set BB-1, to lock doors from inside only, including 2 No. 524 Cane Bottom Bolts (page 473)		
Opening up to 8' wide	\$29.50	94
Opening 8'1" to 9' wide	30.50	97
Opening 9'1" to 10' wide	31.50	100
Set BB-3, to lock doors from inside only, including 2 No. 516 Door Bolts (page 465). Minimum lap of door over jamb is 2 inches.		
Opening up to 8' wide	31.75	95
Opening 8'1" to 9' wide	32.75	98
Opening 9'1" to 10' wide	33.75	101
Set BB-4, to lock doors from inside and outside, including 1 No. 524 Cane Bottom Bolt (page 473), and 1 No. 525 Door Lock (page 469). Minimum lap of door over jamb is 1 $\frac{1}{2}$ inches.		
Opening up to 8' Wide	32.00	95
Opening 8'1" to 9' wide	33.00	98
Opening 9'1" to 10' wide	34.00	101
Set BB-6, to lock doors from inside and outside, including 1 No. 516 Door Bolt (page 465), and 1 No. 525 Door Lock (page 469). Minimum lap of door over jamb is 2 inches.		
Opening up to 8' wide	33.25	95
Opening 8'1" to 9' wide	34.25	98
Opening 9'1" to 10' wide	35.25	101

**Light Weight Hdw.**  
using No. 31 Track  
For Doors Weighing  
up to 200 lbs. each  
1 $\frac{3}{4}$ " to 2 $\frac{1}{4}$ " thick

List Price	Shipping Wt., lbs.
\$29.50	94
30.50	97
31.50	100
31.75	95
32.75	98
33.75	101
32.00	95
33.00	98
34.00	101
33.25	95
34.25	98
35.25	101

**Medium Weight Hdw.**  
using No. 232 Track  
For Doors Weighing  
Between 200-350 lbs.  
each, 1 $\frac{3}{4}$ " to 2 $\frac{1}{2}$ " thick

List Price	Shipping Wt., lbs.
\$47.25	119
48.50	125
49.75	131
49.25	118
50.50	124
51.75	130
49.75	118
51.00	124
52.25	130
51.00	118
52.25	124
53.50	130

**Heavy Weight Hdw.**  
using No. 33 Track  
For Doors Weighing  
Between 350 -600 lbs.  
each, 1 $\frac{3}{4}$ " to 2 $\frac{3}{4}$ " thick

List Price	Shipping Wt., lbs.
\$55.35	174
57.10	180
58.85	186
57.35	173
59.10	179
60.85	185
57.85	174
59.60	180
61.35	186
58.10	174
59.85	180
61.60	186

Notes—Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. Direction Sheet showing erecting details furnished with hardware. If Wicket Entrance Door is wanted, see page 164 for details and prices of hardware.

#### Directions for Ordering Complete Sets

State—Designation of set and number of track. Width of opening. Thickness of doors. Distance doors lap on jambs. Distance from jambs to side walls. Always send sketch of floor plan with above dimensions.

Example Order of Complete Sets—1 Set SlidaSide BB-1 for No. 31 track. Opening 8 feet wide. Doors 1 $\frac{3}{4}$  inches thick. Doors lap on jambs 2 inches. 24 inches from jamb to side walls on both sides.

#### Double Door "B" Short Sets

Packed in One Box Complete Except that Track, Locks and Locking Bolts are Omitted

Includes Brackets for opening 10 feet wide. For opening with wall space between jamb and side wall. For the convenience of dealers who carry our track, locks and locking bolts in stock, we are in a position to furnish Short Sets at the following prices:

For No. 31 Track, per set \$21.75. Shipping weight 58 pounds  
For No. 232 Track, per set 31.50. Shipping weight 90 pounds.  
For No. 33 Track, per set 36.00. Shipping weight 107 pounds.

Example Order—1 Set SlidaSide B for No. 31 Track.

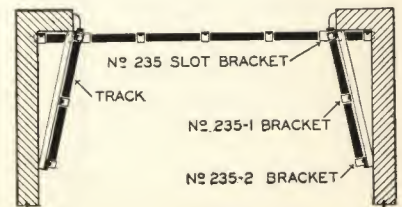


Fig. A-1641—Interior elevation showing proper location and names of 235 Parts for BB-3 Sets, including two 516 Door Bolts.

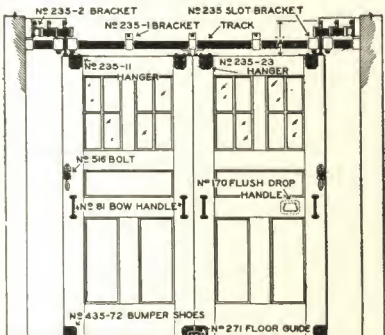


Fig. A-1640—Plan of Tracks

Discount.....

Notice the Wicket Door, partly open, in the above left hand door



## SlidaSide

Patented

### R-W No. 235 Right Angle Garage Door Hardware

"C" and "CC" Single Door Sets

For Opening Adjacent to Side Wall, with Straight Track and No. 235 Patented Corner Bracket

Headroom required above Top of Door, not Opening—See "A" of Fig. A-1640

For No. 31 Track.....	6 <sup>3</sup> / <sub>8</sub> inches
For No. 232 Track.....	7 <sup>5</sup> / <sub>8</sub> inches
For No. 33 Track.....	8 inches

A further reduction of <sup>5</sup>/<sub>8</sub>" in headroom can be secured by sinking the hanger aprons into the top of the door.

Maximum distance from edge of door (not opening) when closed, to side wall: 2 <sup>1</sup>/<sub>8</sub>" for No. 31 Track; 2 <sup>1</sup>/<sub>2</sub>" for Nos. 232 and 33 Track.

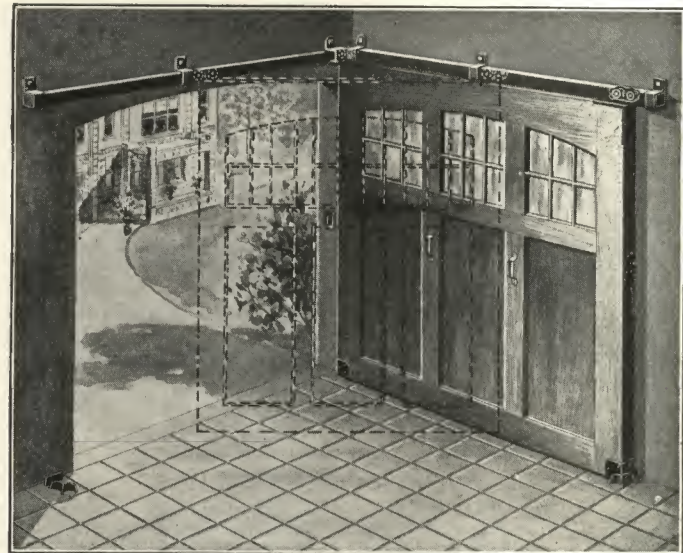


Fig. A-1642—Illustration of interior of garage doorway equipped with Single door SlidaSide CC Hardware. Location of Bolt Holes and Bracket Spacings are given on page 132.

#### List Price for Complete "CC" Sets

These prices include complete hardware for set desired together with all Wall Bolts and Screws, necessary to erect	Light Weight Hdw. using No. 31 Track For Doors Weighing up to 200 lbs. each 1 <sup>1</sup> / <sub>4</sub> " to 2 <sup>1</sup> / <sub>4</sub> " thick		Medium Weight Hdw. using No. 232 Track For Doors Weighing Between 200-350 lbs. each, 1 <sup>1</sup> / <sub>4</sub> " to 2 <sup>1</sup> / <sub>2</sub> " thick		Heavy Weight Hdw. using No. 33 Track For Doors Weighing Between 350-600 lbs. each, 1 <sup>1</sup> / <sub>4</sub> " to 2 <sup>3</sup> / <sub>4</sub> " thick	
	List Price	Shipping Wt., lbs.	List Price	Shipping Wt., lbs.	List Price	Shipping Wt., lbs.
Plus Locking Bolts as follows:						
"CC" Sets						
Set CC-1, to lock doors from inside only, including 1 No. 524 Cane Bottom Bolt (page 473).						
Opening up to 8' wide.....	\$19.75	70	\$30.75	107	\$34.75	132
Openings 8'1" to 9' wide.....	20.75	73	32.00	112	36.50	138
Opening 9'1" to 10' wide.....	21.75	76	33.25	117	38.25	144
Set CC-3, to lock doors from inside only, including 1 No. 516 Door Bolt (page 465). Minimum lap of door over jamb is 2 inches. Minimum width of jamb for 31 track is 3 <sup>1</sup> / <sub>4</sub> "; for No. 232 track 3 <sup>1</sup> / <sub>2</sub> "; for No. 33 track 3 <sup>3</sup> / <sub>4</sub> ".						
Opening up to 8' wide.....	20.25	70	31.25	107	36.25	132
Opening 8'1" to 9' wide.....	21.25	73	32.50	112	38.00	138
Opening 9'1" to 10' wide.....	22.25	76	33.75	117	39.75	144
Set CC-4, to lock doors from outside only, including 1 No. 825 Door Lock (page 470). Minimum lap of door over jamb is 1 <sup>1</sup> / <sub>4</sub> inches. Minimum width of jamb for 31 track is 2 <sup>1</sup> / <sub>4</sub> "; for No. 232 track 2 <sup>3</sup> / <sub>4</sub> "; for No. 33 track 2 <sup>1</sup> / <sub>2</sub> ".						
Opening up to 8' wide.....	21.75	70	31.75	107	36.75	132
Opening 8'1" to 9' wide.....	22.75	73	33.00	112	38.50	138
Opening 9'1" to 10' wide.....	23.75	76	34.25	117	40.25	144

Notes—Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. Direction Sheet showing erecting details furnished with hardware. If Wicket Entrance Door is wanted, see page 164 for details and prices of hardware.

#### Directions for Ordering Complete Sets

State—Designation of set and number of track. Width of opening. Thickness of door. Distance door laps on jamb. Always send sketch of floor plan with above dimensions inserted.

Example Order of Complete Sets—One Set SlidaSide CC-1 for No. 31 Track. Opening 8 feet wide. Door 1 <sup>1</sup>/<sub>4</sub> inches thick. Door laps on jamb 2 inches.

#### Single Door "C" Short Sets

Packed in One Box Complete Except that Track Locks and Locking Bolts are Omitted

Includes Brackets for opening 10 feet wide. For opening adjacent to side wall. For the convenience of dealers who carry our trolley track, locks and locking bolts in stock, we are in a position to furnish Short Sets at the following prices:

For No. 31 Track, per set	\$12.75.	Shipping weight 38 pounds.
For No. 232 Track, per set	17.25.	Shipping weight 53 pounds
For No. 33 Track, per set	19.25.	Shipping weight 72 pounds.

Example Order—1 Set SlidaSide C for No. 31 Track.

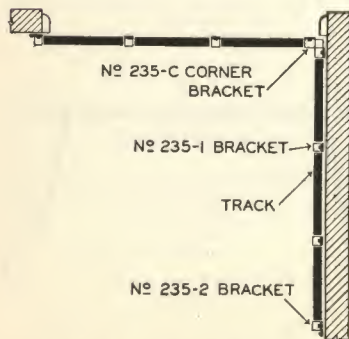


Fig. A-1643—Plan of Track

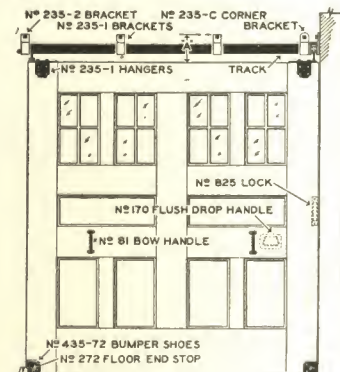


Fig. A-1644—Interior elevation showing proper location and names of 235 Parts for CC-4 Sets, including one No. 825 Door Lock

Discount.....



## SlidaSide

Patented

### R-W No. 235 Right Angle Garage Door Hardware

"D" and "DD" Double Door Sets

For Opening Adjacent to Side Walls with Straight Track and No. 235 Patented Corner Brackets

Headroom required above Top of Door not Opening  
See "A" of Fig. A-1647

For No. 31 Track.....6 3/8"  
For No. 232 Track.....7 5/8"  
For No. 33 Track.....8"

A further reduction of 5/8" in headroom may be secured by sinking hanger aprons into top of door.

Maximum distance from edge of door (not edge of opening) when closed, to side wall; 2 1/8" for No. 31 Track; 2 1/8" for Nos. 232 and 33 Tracks.

Location of Bolt Holes and Bracket Spacings are given on Page 132

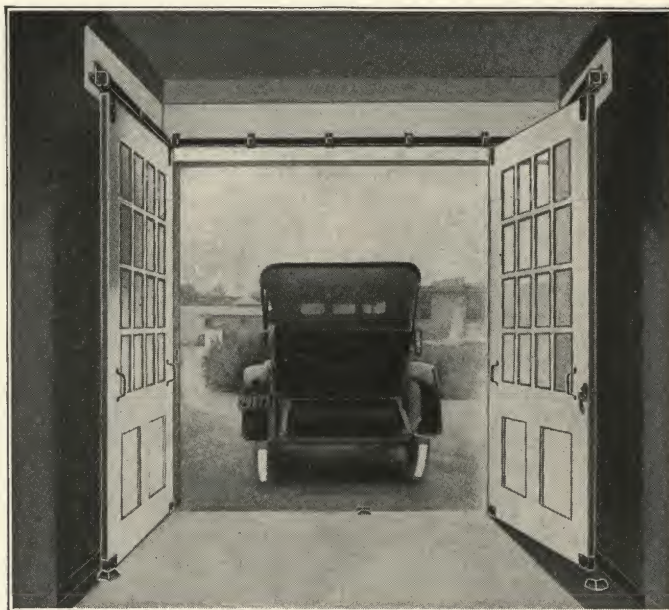


Fig. A-1645—Interior of garage doorway showing Double Doors equipped with SlidaSide DD hardware.

#### List Price for Complete "DD" Sets

These prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect	Light Weight Hdw. using No. 31 Track For Doors Weighing up to 200 lbs. each 1 1/4" to 2 1/4" thick		Medium Weight Hdw. using No. 232 Track For Doors Weighing Between 200-350 lbs. each, 1 1/4" to 2 1/2" thick		Heavy Weight Hdw. using No. 33 Track For Doors Weighing Between 350-600 lbs. each, 1 1/4" to 2 3/4" thick	
	List Price	Shipping Wt., lbs.	List Price	Shipping Wt., lbs.	List Price	Shipping Wt., lbs.
Plus Locking Bolts as follows:						
"DD" Sets						
Set DD-1, to lock doors from inside only, including 2 No. 524 Cane Bottom Bolts (page 473)						
Opening up to 8' wide.....	\$29.00	75	\$46.10	136	\$54.00	151
Opening 8'1" to 9' wide.....	30.00	78	47.35	141	55.75	157
Opening 9'1" to 10' wide.....	31.00	81	48.60	146	57.50	163
Set DD-3, to lock doors from inside only, including 2 No. 516 Door Bolts (page 465). Minimum lap of door over jamb is 2 inches. Minimum width of jamb for 31 track is 3 1/4"; for No. 232 track 3 1/2"; for No. 33 track 3 3/4".						
Opening up to 8' wide.....	31.25	76	48.10	135	56.00	150
Opening 8'1" to 9' wide.....	32.25	79	49.35	140	57.75	156
Opening 9'1" to 10' wide.....	33.25	82	50.60	145	60.50	162
Set DD-4, to lock doors from inside and outside, including 1 No. 524 Cane Bottom Bolt (page 473), and 1 No. 825 Door Lock (page 470). Minimum lap of door over jamb is 1 1/2". Minimum width of jamb for 31 track is 2 3/8"; for No. 232 track 2 3/4"; for No. 33 track 2 1/2".						
Opening up to 8' wide.....	31.50	75	48.60	136	56.50	150
Opening 8'1" to 9' wide.....	32.50	78	49.85	141	58.25	156
Opening 9'1" to 10' wide.....	33.50	81	51.10	146	60.00	162
Set DD-6, to lock doors from inside and outside, including 1 No. 516 Door Bolt (page 465), and 1 No. 825 Door Lock (page 470). Minimum lap of door over jamb is 2 inches. Minimum width of jamb for 31 track is 3 1/4"; for No. 232 track 3 1/2"; for No. 33 track 3 3/4".						
Opening up to 8' wide.....	32.75	76	49.85	136	56.75	151
Opening 8'1" to 9' wide.....	33.75	78	51.10	141	58.50	157
Opening 9'1" to 10' wide.....	34.75	82	52.35	146	60.25	163

Notes—Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. Direction Sheet showing erecting details furnished with hardware. If Wicket Entrance Door is wanted, see page 164, for details and prices of hardware.

#### Directions for Ordering Complete Sets

State—Designation of set and number of track. Width of opening. Thickness of doors. Distance doors lap on jambs. Always send sketch of floor plan with above dimensions inserted. Example Order of Complete Sets—One Set SlidaSide DD-1 for No. 31 Track. Opening 8 feet wide. Doors 1 1/4 inches thick. Doors lap 2 inches on jambs.

#### Double Door "D" Short Sets

Packed in One Box Complete Except that Track  
Locks and Locking Bolts are Omitted

For opening adjacent to side walls. Includes Brackets for opening 10 feet wide.

For the convenience of dealers who carry our trolley track, locks and locking bolts in stock, we are in a position to furnish Short Sets at the following prices.

For No. 31 Track, per set \$21.25. Shipping weight 40 pounds.  
For No. 232 Track, per set 30.15. Shipping weight 78 pounds.  
For No. 33 Track, per set 34.25. Shipping weight 87 pounds.

Example Order—1 Set SlidaSide D for No. 31 Track.

Discount.....

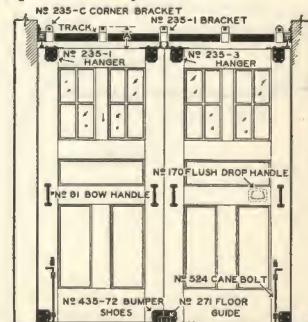


Fig. A-1647—Interior elevation showing proper location and names of parts for DD-1 Sets, including two 524 Cane Bottom Bolts

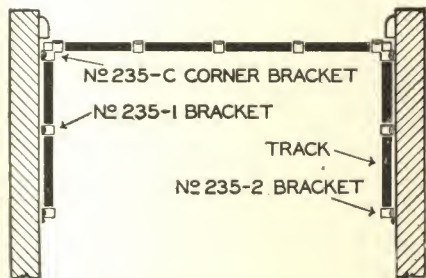


Fig. A-1646—Plan of Tracks



## SlidaSide

Patented

### R-W No. 235 Right Angle Garage Door Hardware

with Curved Corner Track  
"E" and "EE" Single Door Sets

Minimum Distance from Jamb to Side Wall 26 Inches  
Hardware Suitable for Less Space  
Shown on pages 122 and 124

Headroom required above Top of Door, not Opening—See "A" of Fig. A-1650.

For No. 31 Track.....6 $\frac{3}{8}$  inches  
For No. 232 Track.....7 $\frac{7}{8}$  inches  
For No. 33 Track.....8 $\frac{1}{4}$  inches

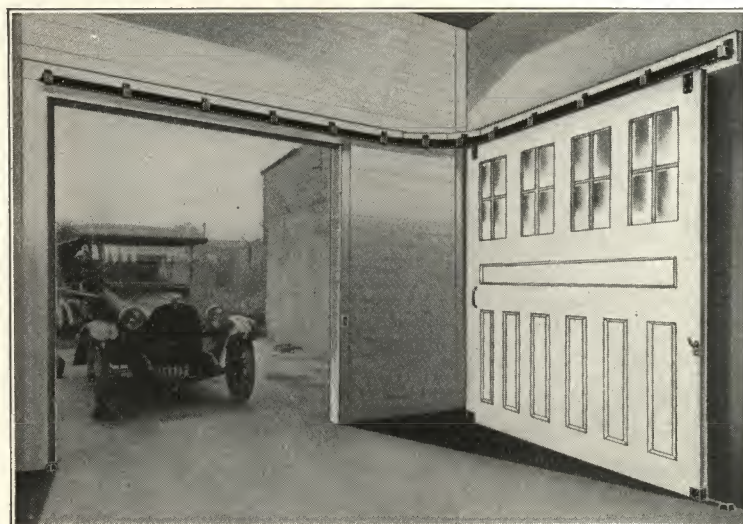


Fig. A-1648—Interior View. Both Hangers Roll Around the Curved Track.

Headroom may be decreased  $\frac{1}{8}$ " on Nos. 31 and 232 Track Equipments, and  $1\frac{1}{4}$ " on No. 33 Track Equipment, by using No. 7 style ceiling track brackets. A further reduction of  $\frac{3}{8}$ " in headroom may be secured by sinking the hanger aprons into the top of the door.

Location of Bolt Holes and Bracket Spacings are given on page 132.

#### List Price for Complete "EE" Sets

These prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect  Plus Locking Bolts as follows:  "EE" Sets	Light Weight Hdw. using No. 31 Track For Doors Weighing up to 200 lbs. each 1 $\frac{3}{4}$ " to 2 $\frac{1}{4}$ " thick		Medium Weight Hdw. using No. 232 Track For Doors Weighing Between 200-350-lbs. each, 1 $\frac{3}{4}$ " to 2 $\frac{1}{2}$ " thick		Heavy Weight Hdw. using No. 33 Track For Doors Weighing Between 350-600 lbs. each, 1 $\frac{3}{4}$ " to 2 $\frac{3}{4}$ " thick	
	List Price	Shipping Wt., lbs.	List Price	Shipping Wt., lbs.	List Price	Shipping Wt., lbs.
Set EE-1, to lock doors from inside only, including 1 No. 524 Cane Bottom Bolt (page 473).						
Opening up to 8' wide.....	\$25.60	67	\$39.75	113	\$48.10	130
Opening 8'1" to 9' wide.....	26.60	70	41.00	118	49.85	136
Opening 9'1" to 10' wide.....	27.60	73	42.25	123	51.60	142
Set EE-3, to lock doors from inside only, including 1 No. 516 Door Bolt (page 465). Minimum lap of door over jamb is 2 inches.						
Opening up to 8' wide.....	26.95	66	40.90	113	49.10	130
Opening 8'1" to 9' wide.....	27.95	69	42.15	118	50.85	136
Opening 9'1" to 10' wide.....	28.95	72	43.40	123	52.60	142
*Set EE-4, to lock doors from inside and outside, including 1 No. 525 Door Lock (page 469).						
Opening up to 8' wide.....	29.35	67	42.25	113	50.60	130
Opening 8'1" to 9' wide.....	30.35	70	43.50	118	52.35	136
Opening 9'1" to 10' wide.....	31.35	73	44.75	123	54.10	142

Notes—\*When the No. 525 Door Lock is attached to the front edge of the door, it is advisable, though not necessary, to use the No. 635 Floor Guide (listed page 453), to hold the back edge of the door tight against the casing. Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. If Wicket Entrance Door is wanted, see page 164 for details and prices of hardware.

#### Directions for Ordering Complete Sets

State—Designation of set and number of track. Width of opening. Thickness of doors. Distance between jamb and side wall. Distance door laps on jamb. Always send sketch of floor plan with above dimensions inserted.

Example Order of Complete Sets—One Set SlidaSide EE-3 for No. 31 Track. Opening 8 feet wide. Doors 1 $\frac{3}{4}$  inches thick. 30 inches between jamb and side wall. Doors lap 2 inches on jamb.

#### Single Door "E" Short Sets

Packed in one Box Complete Except that Track,  
Locks and Locking Bolts are Omitted

Includes Brackets for opening 10 feet wide. For the convenience of dealers who carry our trolley track, locks and locking bolts in stock, we are in a position to furnish Short Sets at the following prices:

For No. 31 Track, per set \$19.00. Shipping weight 32 pounds.  
For No. 232 Track, per set 28.00. Shipping weight 55 pounds.  
For No. 33 Track, per set 33.20. Shipping weight 64 pounds.

Example Order—1 Set SlidaSide E for No. 33 Track.

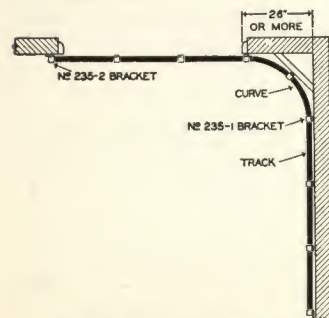


Fig. A-1649—Plan of Track

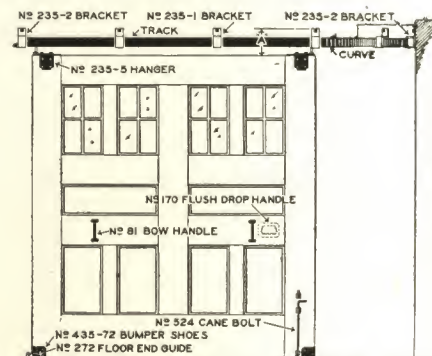


Fig. A-1650—Interior elevation showing proper location and names of 235 Parts for EE-1 Sets, including one 524 Cane Bottom Bolt

Discount.....



## SlidaSide

Patented

### R-W No. 235 Right Angle Garage Door Hardware

#### "F" and "FF" Double Door Sets

With Curved Corner Track. Minimum Distance from Jamb to Side Wall, 26 Inches—Hardware Suitable for Less Space Shown on pages 123 and 125.

Headroom required above Top of Door, not Opening—See "A" of Fig. A-1653

For No. 31 Track	..... 6 3/8 inches
For No. 232 Track	..... 7 7/8 inches
For No. 33 Track	..... 8 1/4 inches

Headroom may be decreased 1/8" on Nos. 31 and 232 Track Equipments, and 1/4" on No. 33 Track, by using No. 7 style ceiling track brackets. A further reduction of 3/8" in headroom may be secured by sinking the hanger aprons into the top of the door.

Location of Bolt Holes and Bracket Spacings are given on page 132.

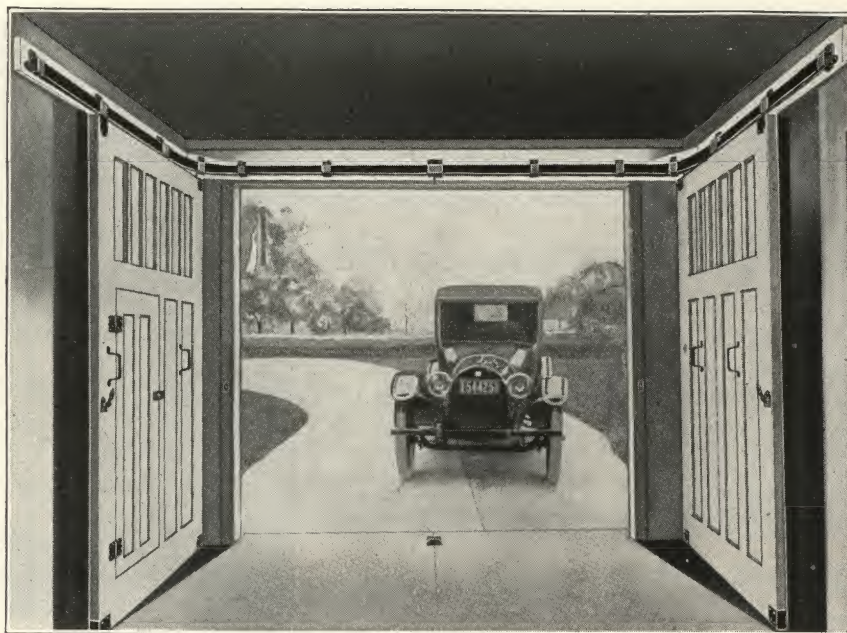


Fig. A-1651—Interior View. Note the Wicket Entrance Door in Door on Left  
List Price for Complete "FF" Sets

These prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect

#### Plus Locking Bolts as follows:

##### "FF" Sets

Set FF-1, to lock doors from inside only, including 2 No. 524 Cane Bottom Bolts (page 473)		
Opening up to 8' wide	\$40.50	88
Opening 8'1" to 9' wide	41.50	91
Opening 9'1" to 10' wide	42.50	94
Set FF-2, to lock doors from inside only, including 2 No. 516 Door Bolts (page 465). Minimum lap of door over jamb is 2 inches		
Opening up to 8' wide	43.20	87
Opening 8'1" to 9' wide	44.20	90
Opening 9'1" to 10' wide	45.20	93
*Set FF-3, to lock doors from inside and outside, including 1 No. 524 Cane Bottom Bolt (page 473), and 1 No. 525 Door Lock (page 469).		
Opening up to 8' wide	41.80	89
Opening 8'1" to 9' wide	42.80	92
Opening 9'1" to 10' wide	43.80	95
*Set FF-4, to lock doors from inside and outside, including 1 No. 516 Door Bolt (page 465), and 1 No. 525 Door Lock (page 469). Minimum lap of door over jamb is 2 inches.		
Opening up to 8' wide	44.60	89
Opening 8'1" to 9' wide	45.60	92
Opening 9'1" to 10' wide	46.60	95

Light Weight Hdw. using No. 31 Track For Doors Weighing up to 200 lbs. each 1 3/4" to 2 1/4" thick

List Price	Shipping Wt., lbs.
\$40.50	88
41.50	91
42.50	94
43.20	87
44.20	90
45.20	93
41.80	89
42.80	92
43.80	95
44.60	89
45.60	92
46.60	95

Medium Weight Hdw. using No. 232 Track For Doors Weighing Between 200-350 lbs. each, 1 3/4" to 2 1/2" thick

List Price	Shipping Wt., lbs.
\$61.00	148
62.25	153
63.50	158
63.30	147
64.55	152
65.80	157
63.80	148
64.85	153
66.10	158
64.70	148
65.95	153
67.20	158

Heavy Weight Hdw. using No. 33 Track For Doors Weighing Between 350-600 lbs. each, 1 3/4" to 2 3/4" thick

List Price	Shipping Wt., lbs.
\$71.00	168
72.75	174
74.50	180
73.40	167
75.15	173
76.90	179
73.70	168
75.45	173
77.20	180
74.80	168
76.55	173
78.30	180

Notes—\*When the No. 525 Lock is attached to the front edge of the door it is advisable, though not necessary, to use the No. 635 Floor Guide to hold the back edge of the door tight against the casing. If the floor guides are used on both sides of the opening the No. 524 and No. 516 Bolts can be omitted. Deduct the detailed list price of the omitted bolts from the price of the set, and add the price of the No. 635 Floor Guide Equipment (listed on page 453). Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. Direction Sheet showing erecting details furnished with hardware. If Wicket Entrance Door is wanted, see page 164 for details and prices of hardware.

#### Directions for Ordering Complete Sets

State—Designation of set and number of track. Width of opening. Thickness of doors. Distance between jamb and side walls on each side. Distance doors lap on jambs. Always send sketch of floor plan with above dimensions inserted.

Example Order of Complete Sets—One Set SlidaSide FF-3 for No. 31 Track. Opening 8 feet wide. Doors 1 3/4 inches thick. Distance between jamb and side wall, 30 inches on right side; 28 inches on left side. Doors lap 2 inches on jamb.

#### Double Door "F" Short Sets

Packed in One Box Complete Except that Track, Locks and Locking Bolts are Omitted

Includes Brackets for opening 10 feet wide. For the convenience of dealers who carry our trolley track, locks and locking bolts in stock, we are in a position to furnish Short Sets at the following prices:

For No. 31 track, per set \$33. Shipping weight 45 lbs.  
For No. 232 track, per set 48.00. Shipping weight 76 lbs.  
For No. 33 track, per set 55.00. Shipping weight 85 lbs.

Example Order—1 set SlidaSide F for No. 31 Track.

Discount

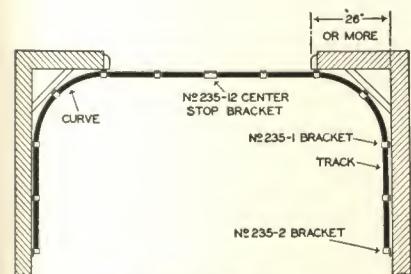


Fig. A-1652—Plan of Track

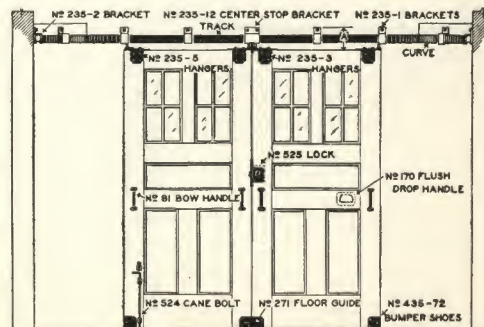


Fig. A-1653—Interior elevation showing proper location and names of 235 Parts for FF-3 Set, including one 525 Lock and one 524 Cane Bottom Bolt.

And on page 440 Door Binders and Stops are shown



## SlidaSide

Patented

### R-W No. 235 Right Angle Garage Door Hardware

Sets "G" and "GG"  
Two Doors Hinged Together

Minimum distance from jamb to side wall is 26"  
Hardware suitable for less space shown on page 137

Headroom required above Top of Door, not Opening—See "A" of Fig. A-1656.

For No. 31 Track.....6 $\frac{3}{8}$  inches  
For No. 232 Track.....7 $\frac{7}{8}$  inches  
For No. 33 Track.....8 $\frac{1}{4}$  inches

Headroom may be decreased  $\frac{1}{8}$ " on Nos. 31 and 232 Track Equipments, and  $\frac{1}{4}$ " on No. 33 Track Equipment, by using No. 7 style ceiling track brackets. A further reduction of  $\frac{3}{8}$ " in headroom may be secured by sinking the hanger aprons into the top of the door.

Location of Bolt Holes and Bracket Spacings are given on page 132.

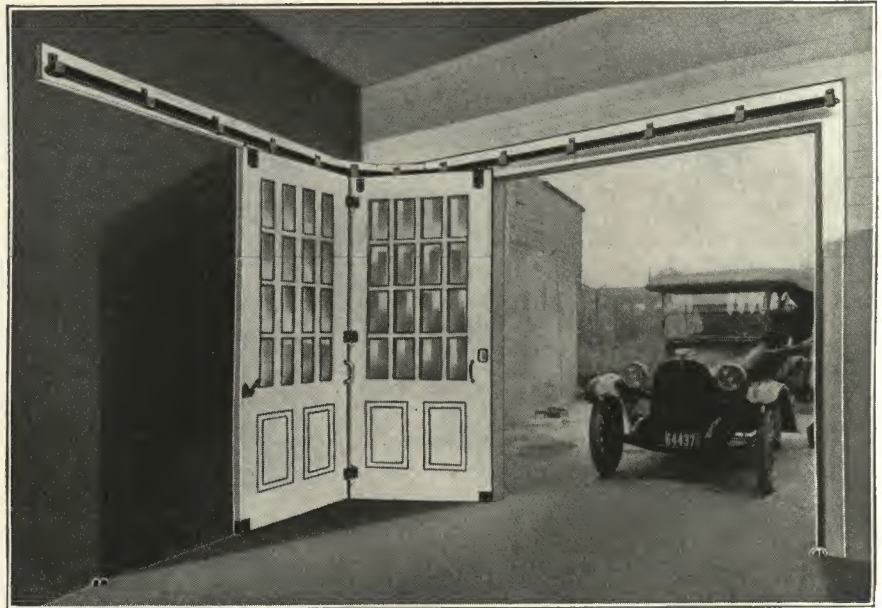


Fig. A-1654—Interior View. Two Doors Hinged Together.

#### List Price for Complete "GG" Sets

These prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect  Plus Locking Bolts as follows:  "GG" Sets	Light Weight Hdw. using No. 31 Track For Doors Weighing up to 200 lbs. each 1 $\frac{3}{4}$ " to 2 $\frac{1}{4}$ " thick		Medium Weight Hdw. using No. 232 Track For Doors Weighing Between 200-350 lbs. each, 1 $\frac{3}{4}$ " to 2 $\frac{1}{4}$ " thick		Heavy Weight Hdw. using No. 33 Track For Doors Weighing Between 350-600 lbs. each, 1 $\frac{3}{4}$ " to 2 $\frac{3}{4}$ " thick	
	List Price	Shipping Wt., lbs.	List Price	Shipping Wt., lbs.	List Price	Shipping Wt., lbs.
Set GG-1, to lock doors from inside only, including 1 No. 524 Cane Bottom Bolt (page 473).						
Opening up to 8' wide.....	\$31.00	76	\$46.10	128	\$55.00	147
Opening 8'1" to 9' wide.....	32.00	79	47.35	134	56.75	153
Opening 9'1" to 10' wide.....	33.00	82	48.60	140	58.50	159
Set GG-3, to lock doors from inside only, including 1 No. 516 Door Bolt (page 465). Minimum lap of door over jamb is 2 inches.						
Opening up to 8' wide.....	32.20	76	47.20	128	56.10	147
Opening 8'1" to 9' wide.....	33.20	79	48.45	134	57.85	153
Opening 9'1" to 10' wide.....	34.20	82	49.70	140	59.60	159
*Set-GG-4, to lock doors from inside and outside, including 1 No. 525 Door Lock (page 469).						
Opening up to 8' wide.....	33.60	76	48.60	128	57.50	147
Opening 8'1" to 9' wide.....	34.60	79	49.85	134	59.25	153
Opening 9'1" to 10' wide.....	35.60	82	51.10	140	61.00	159

Notes—\*When the No. 525 Lock is attached to the front edge of the door, it is advisable, though not necessary, to use the No. 635 Floor Guide (listed page 453), to hold the back edge of the door tight against the casing. Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. Direction sheet showing erecting details furnished with hardware. If Wicket Entrance Door is wanted, see page 164 for details and prices of hardware.

#### Directions for Ordering Complete Sets

State—Designation of set and number of track. Width of opening. Thickness of doors. Distance between jamb and side wall. Distance door laps on jamb. Always send sketch of floor plan with above dimensions inserted.

Example Order of Complete Sets—One Set SlidaSide GG-3 for No. 31 track. Opening 10 feet wide. Doors 1 $\frac{3}{4}$  inches thick. Distance between jamb and side wall 32 inches. Door laps on jamb 2 inches.

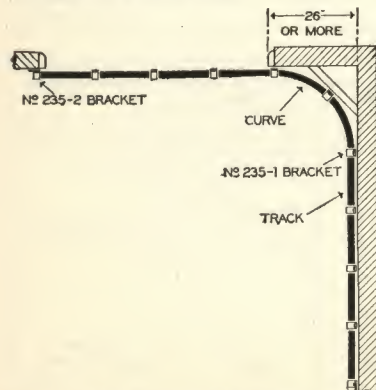


Fig. A-1655—Plan of Track

#### "G" Short Sets Two Doors Hinged Together

Packed in One Box Complete Except that Track,  
Locks and Locking Bolts are Omitted

Includes Brackets for opening 10 feet wide. For the convenience of dealers who carry our trolley track, locks and locking bolts in stock, we are in a position to furnish Short Sets at the following prices:

For No. 31 Track, per set \$24.30. Shipping weight 42 pounds.  
For No. 232 Track, per set 34.00. Shipping weight 71 pounds.  
For No. 33 Track, per set 40.00. Shipping weight 82 pounds

Example Order—1 Set SlidaSide G, for No. 31 Track.

Discount.....

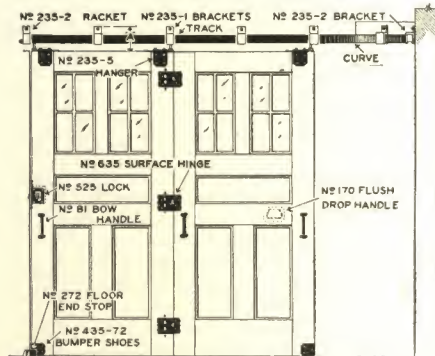


Fig. A-1656—Interior elevation showing proper location and names of 235 Parts for GG-4 Set, including one 525 Lock



## SlidaSide

Patented

### R-W No. 235 Right Angle Garage Door Hardware Equipment "HH"

For Two Pairs of Doors Hinged Together, Opening in Opposite Directions, with Curved Corner Track. Minimum Distance from Jambs to the Side Walls, 26 inches—Hardware Suitable for Less Space Shown on page 138.

Headroom required above Top of Door, not Opening—See "A" of Fig. A-1659

For No. 31 Track.....	6 $\frac{3}{8}$ inches
For No. 232 Track.....	7 $\frac{7}{8}$ inches
For No. 33 Track.....	8 $\frac{1}{4}$ inches

Headroom may be decreased  $\frac{1}{8}$ " on Nos. 31 and 232 Track Equipments, and  $\frac{1}{4}$ " on No. 33 Track Equipment, by using No. 7 style ceiling track brackets. A further reduction of  $\frac{5}{8}$ " in headroom may be secured by sinking the hanger aprons into the top of the door.

Location of Bolt Holes and Bracket Spacings are given on page 132.



Fig. A-1657—Interior View. Two Pairs of Doors Hinged Together using No. 635 Floor Guide Track

#### List Price for Complete "HH" Sets

These prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect

#### Plus Locking Bolts as follows:

##### "HH" Sets

Set HH-1, to lock doors from inside only, including 2 No. 524 Cane Bottom Bolts (page 473).		
Opening up to 8' wide.....	\$50.90	103
Opening 8'1" to 10' wide.....	52.90	109
Opening 10'1" to 12' wide.....	54.90	115
Opening 12'1" to 14' wide.....	56.90	121
Opening 14'1" to 16' wide.....	58.90	127
Set HH-2, to lock doors from inside only, including 2 No. 516 Door Bolts (page 465). Minimum lap of door over jamb is 2 inches.		
Opening up to 8' wide.....	53.60	104
Opening 8'1" to 10' wide.....	55.60	110
Opening 10'1" to 12' wide.....	57.60	116
Opening 12'1" to 14' wide.....	59.60	122
Opening 14'1" to 16' wide.....	61.60	128
*Set HH-3, to lock doors from inside and outside, including 1 No. 524 Cane Bottom Bolt (page 473), and 1 No. 525 Door Lock (page 469).		
Opening up to 8' wide.....	53.90	104
Opening 8'1" to 10' wide.....	55.90	110
Opening 10'1" to 12' wide.....	57.90	116
Opening 12'1" to 14' wide.....	59.90	122
Opening 14'1" to 16' wide.....	61.90	128
*Set HH-4, to lock doors from inside and outside, including 1 No. 516 Door Bolt (page 465), and 1 No. 525 Door Lock (page 469). Minimum lap of door over jamb is 2 inches.		
Opening up to 8' wide.....	55.00	104
Opening 8'1" to 10' wide.....	57.00	110
Opening 10'1" to 12' wide.....	59.00	116
Opening 12'1" to 14' wide.....	61.00	122
Opening 14'1" to 16' wide.....	63.00	128

Light Weight Hdw. using No. 31 Track For Doors Weighing up to 200 lbs each 1 $\frac{1}{4}$ " to 2 $\frac{1}{4}$ " thick

List Price	Shipping Wt., lbs.
\$50.90	103
52.90	109
54.90	115
56.90	121
58.90	127

Medium Weight Hdw. using No. 232 Track For Doors Weighing Between 200-350 lbs. each, 1 $\frac{3}{4}$ " to 2 $\frac{1}{2}$ " thick

List Price	Shipping Wt., lbs.
\$73.50	169
76.00	179
78.50	189
81.00	199
83.50	209

Heavy Weight Hdw. using No. 33 Track For Doors Weighing Between 350-600 lbs. each, 1 $\frac{3}{4}$ " to 2 $\frac{3}{4}$ " thick

List Price	Shipping Wt., lbs.
\$84.60	190
88.10	202
91.60	214
95.10	226
98.60	238

53.60	104
55.60	110
57.60	116
59.60	122
61.60	128

75.70	169
78.20	179
81.70	189
85.20	199
88.70	209

86.80	190
90.30	202
93.80	214
97.30	226
99.80	238

53.90	104
55.90	110
57.90	116
59.90	122
61.90	128

76.00	169
78.50	179
81.00	189
83.50	199
86.00	209

87.10	190
90.60	202
94.10	214
97.60	226
101.10	238

55.00	104
57.00	110
59.00	116
61.00	122
63.00	128

77.10	169
79.60	179
82.10	189
84.60	199
87.10	209

88.20	190
91.70	202
95.20	214
98.70	226
102.20	238

Notes—When the No. 525 Lock is attached to the front edge of the door, it is advisable, though not necessary, to use the No. 635 Floor Guide, to hold the back edge of the door tight against the casing. If the Floor Guides are used on both sides of the opening, the No. 524 and No. 516 Door Bolts can be omitted. Deduct the detailed list price of the omitted bolts from the price of the set, and add the price of the No. 635 Floor Guide Equipment, listed on page 453, Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. Direction Sheet showing erecting details furnished with hardware. If Wicket Entrance Door is wanted see page 164 for details and prices of hardware.

#### Directions for Ordering Complete Sets

State—Designation of set and number of track. Width of opening. Thickness of doors. Distance between jambs and side walls on each side. Distance doors lap on jambs. Always send sketch of floor plan with above dimensions inserted.

Example Order of Complete Sets—One Set SlidaSide HH-4, for No. 33 Track. Opening 10 feet wide. Doors 2 $\frac{1}{4}$  inches thick. Distance between jamb and side wall, 30 inches on right side; 32 inches on left side. Doors lap on jambs, 2 inches.

#### Two Pairs of Doors Hinged Together, "H" Short Sets

Packed in One Box Complete Except that Track Locks and Locking Bolts are Omitted

Includes Brackets for opening 10 feet wide. Diagrams Show Installation Details. For the convenience of dealers who carry our trolley track, locks and locking bolts in stock, we are in a position to furnish Short Sets at the following prices:

For No. 31 Track, per set \$43.50. Shipping weight, 60 lbs.  
For No. 232 Track, per set 58.40. Shipping weight, 97 lbs.  
For No. 33 Track, per set 68.00. Shipping weight 107 lbs.

Example Order—1 Set SlidaSide H, for No. 33 track.

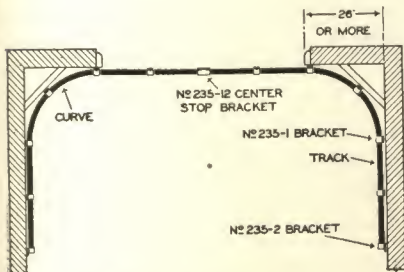


Fig. A-1658—Plan of Track

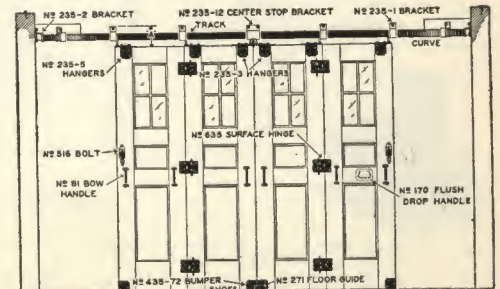


Fig. A-1659—Interior elevation showing proper location and names of 235 Parts for HH-2 Set, including two 516 Door bolts

Discount

Connecting Plates, page 444, have a multitude of uses



## SlidaSide

Patented

### R-W No. 235 Right Angle Garage Door Hardware

#### "J" and "JJ" Sets for Three Doors Hinged Together

Headroom required above Top of Door, not Opening See "A" of Fig. A-1660

For No. 31 Track.....6 3/8 inches  
For No. 232 Track.....7 7/8 inches  
For No. 33 Track.....8 1/4 inches

Headroom may be decreased 1/8" on Nos. 31 and 232 Track Equipments, and 1/4" on No. 33 Track Equipment, by using No. 7 style ceiling track brackets. A further reduction of 3/8" in headroom may be secured by sinking the hanger aprons into the top of the door.

Location of Bolt Holes and Bracket Spacings are given on page 132.

For three doors hinged together. The door nearest the side of the building toward which the doors slide in opening, is used as an entrance door. The doors may be mounted to slide to the left as shown in the illustration or to slide to the right. The hardware is reversible and can be used in any opening regardless of the distance from the jamb to the side wall, but only sufficient straight track is included in the price of the complete set for a distance from jamb to side wall not exceeding two feet. The radius of the curved track is 24 inches.

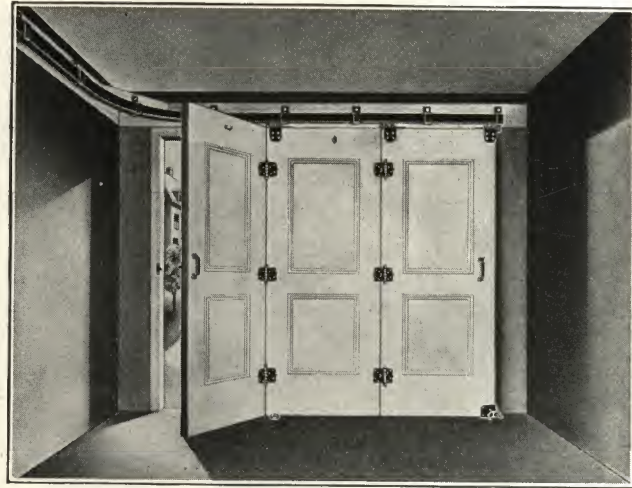


Fig. A-1660—Sets JJ and KK, as shown on this and the following page, are by far the most popular of all the SlidaSide Sets.

#### List Price for Complete "JJ" Sets (Track Bundled)

These prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect	Light Weight Hardware using No. 31 Track For Doors Weighing up to 200 lbs. each 1 3/4" to 2 1/4" thick			Medium Weight Hardware using No. 232 Track For Doors Weighing Between 200-350 lbs. each, 1 3/4" to 2 1/2" thick			Heavy Weight Hardware using No. 33 Track For Doors Weighing Between 350-600 lbs. each, 1 3/4" to 2 3/4" thick		
	Catalog Number	List Price	Shipping Wt., lbs.	Catalog Number	List Price	Shipping Wt., lbs.	Catalog Number	List Price	Shipping Wt., lbs.
Plus Locking Bolts as follows:									
"JJ" Sets									
To lock doors from outside only, including 1 No. 835 Locking Bolt.									
Opening up to 8' wide.....	235-JJ-1831	\$27.00	60	235-JJ-18232	\$38.00	94	235-JJ-1833	\$44.00	122
Opening 8'1" to 9' wide.....	235-JJ-1931	28.00	64	235-JJ-19232	39.50	101	235-JJ-1933	45.50	131
Opening 9'1" to 10' wide.....	235-JJ-11031	29.50	68	235-JJ-110232	41.50	119	235-JJ-11033	47.50	141
To lock doors from outside only, including 1 No. 525 Door Lock (page 469) Minimum lap of door over jamb is 1 1/2 inches.									
Opening up to 8' wide.....	235-JJ-2831	30.00	62	235-JJ-28232	41.00	96	235-JJ-2833	47.00	124
Opening 8'1" to 9' wide.....	235-JJ-2931	31.00	66	235-JJ-29232	42.50	103	235-JJ-2933	48.50	133
Opening 9'1" to 10' wide.....	235-JJ-21031	32.50	70	235-JJ-210232	43.50	121	235-JJ-21033	50.50	143

List Price for complete "JJ" Sets with Short Lengths of No. 31 Track Packed in the box with the Rest of the Hardware, plus one \*No. 39 Lock Joint Bracket for each Track Joint

To lock doors from outside only, including 1 No. 835 Locking Bolt	Catalog Number	List Price	Shipping Wt., lbs.	To lock doors from outside only, including 1 No. 525 Door Lock page 469). Minimum lap of door over jamb is 1 1/2 inches	Catalog Number	List Price	Shipping Wt., lbs.
Opening up to 8' wide.....	T235-JJ-1831	\$27.00	60	Opening up to 8' wide.....	T235-JJ-2831	\$30.00	62
Opening 8'1" to 9' wide.....	T235-JJ-1931	28.00	64	Opening 8'1" to 9' wide.....	T235-JJ-2931	31.00	66
Opening 9'1" to 10' wide.....	T235-JJ-11031	29.50	68	Opening 9'1" to 10' wide.....	T235-JJ-21031	32.50	70

Notes—Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. Direction Sheet showing erecting details furnished with hardware.

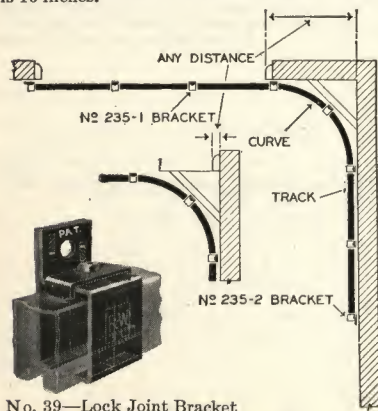
\*Made so that the ends of the track are forced tightly against the bottom of the bracket, and to prevent the tracks from separating at the joints.

#### Discount

#### Directions for Ordering Complete Sets

State—Catalog Number of Set. Width of opening. Thickness of doors. Distance between jambs and side wall toward which the doors slide in opening. Always send sketch of floor plan with above dimensions inserted.

Example Order of Complete Sets—One No. 235-JJ-1831 Set. Opening 8' wide Doors 1 1/4" thick. Distance between the jamb and side wall toward which doors slide in opening is 16 inches.



No. 39—Lock Joint Bracket

Fig. A-1661—Plan of Track. Large plan shows a front wall extending from the side wall to the doorway, small plan shows doorway adjacent to side wall

#### "J" Short Sets Three Doors Hinged Together

Packed in One Box Complete Except that Track Locks and Locking Bolts are Omitted

Includes Brackets for opening 10 feet wide. Curved track furnished with this set. For the convenience of dealers who carry our Trolley Track, Locks and Locking Bolts in stock, we are in position to furnish Short Sets at the following prices:

##### Set No. S235-J-31

For No. 31 Track, per set \$24.30. Shipping weight 44 lbs.

##### Set No. S235-J-232

For No. 232 Track, per set \$34.00. Shipping weight 73 lbs.

##### Set No. S235-J-33

For No. 33 Track, per set \$40.00. Shipping weight 84 lbs.

#### Discount

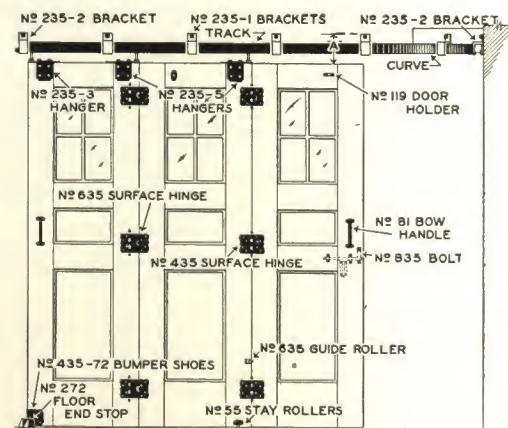


Fig. A-1662—Interior elevation showing proper location and names of 235 Parts for Set 235-JJ-1931, including one 835 Door Bolt



## SlidaSide

Patented

### No. 235 Right Angle Garage Door Hardware

6-Door "K" and "KK" Sets

Six Doors, Three of which are Hinged Together and Slide to the Right, and Three of which are Hinged Together and Slide to the Left.

The end doors nearest the side of the building toward which the doors slide in opening, are used as entrance doors. The hardware can be used in any opening regardless of the distance from the jamb to the side wall, but only sufficient straight track is included in the price of the complete set for a distance from jamb to side walls not exceeding two feet. The radius of the curved track is 24 inches.



Fig. A-1663—Three Doors sliding to each side of the Garage

#### List Price for Complete "KK" Sets (Track Bundled)

These prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect Plus Locking Bolts as follows: "KK" Sets	Light Weight Hardware using No. 31 Track For Doors Weighing up to 200 lbs. each 1 1/4" to 2 1/4" thick			Medium Weight Hardware using No. 232 Track For Doors Weighing Between 200-350 lbs. each, 1 1/4" to 2 1/4" thick			Heavy Weight Hardware using No. 33 Track For Doors Weighing Between 350-600 lbs. each, 1 1/4" to 2 1/4" thick		
	Catalog Number	List Price	Shipping Wt., lbs.	Catalog Number	List Price	Shipping Wt., lbs.	Catalog Number	List Price	Shipping Wt., lbs.
To lock doors from outside only, including 2 No. 835 Locking Bolts.									
Opening up to 16' wide. ....	235-KK-11631	\$54.00	120	235-KK-116232	\$76.00	188	235-KK-11633	\$88.00	244
Opening 16'1" to 18' wide. ....	235-KK-11831	56.00	128	235-KK-118232	79.00	202	235-KK-11833	91.00	262
Opening 18'1" to 20' wide. ....	235-KK-12031	59.00	136	235-KK-120232	83.00	238	235-KK-12033	95.00	282
To lock doors from outside only, including 2 No. 525 Door Locks (page 469). Minimum lap of door over jamb is 1 1/2 inches.									
Opening up to 16' wide. ....	235-KK-21631	60.00	124	235-KK-216232	82.00	192	235-KK-21633	94.00	248
Opening 16'1" to 18' wide. ....	235-KK-21831	62.00	132	235-KK-218232	85.00	206	235-KK-21833	97.00	266
Opening 18'1" to 20' wide. ....	235-KK-22031	65.00	140	235-KK-220232	87.00	242	235-KK-22033	101.00	286
With one 516 Door Bolt (page 465), to bolt 3 doors from inside and one 835 Door Bolt to bolt 3 doors from outside. Minimum lap of door over jamb is 2 in.									
Opening up to 16' wide. ....	235-KK-31631	52.65	120	235-KK-316232	74.65	188	235-KK-31633	86.65	244
Opening 16'1" to 18' wide. ....	235-KK-31831	54.65	128	235-KK-318232	77.65	202	235-KK-31833	89.65	262
Opening 18'1" to 20' wide. ....	235-KK-32031	57.65	136	235-KK-320232	81.65	238	235-KK-32033	93.65	282
With one 516 Door Bolt (page 465), to Bolt 3 doors from inside and one 525 Door Lock (page 469) to lock 3 doors from outside. Minimum lap of door over jamb is 2 inches									
Opening up to 16' wide. ....	235-KK-41631	55.65	124	235-KK-416232	80.65	192	235-KK-41633	92.65	248
Opening 16'1" to 18' wide. ....	235-KK-41831	57.65	132	235-KK-418232	83.65	206	235-KK-41833	95.65	266
Opening 18'1" to 20' wide. ....	235-KK-42031	60.65	140	235-KK-420232	85.65	242	235-KK-42033	99.65	286

#### List Price for Complete "KK" Sets with Short Lengths of No 31 Track Packed in Box with the Rest of the Hardware, plus one \*No. 39 Lock Joint Bracket for each Track Joint.

To lock doors from outside only including 2 No. 835 Locking Bolts	Catalog Number	List Price	Shipping Wt., lbs.	With one 516 Door Bolt (page 465) to bolt 3 doors from inside and one 835 Door Bolt to bolt 3 doors from outside. Min'm. lap of door over jamb is 2"	Catalog Number	List Price	Shipping Wt., lbs.
Opening up to 16' wide. ....	T235-KK-11631	\$54.00	120	Opening up to 16' wide. ....	T235-KK-31631	\$52.65	120
Opening 16'1" to 18' wide. ....	T235-KK-11831	56.00	128	Opening 16'1" to 18' wide. ....	T235-KK-31831	54.65	128
Opening 18'1" to 20' wide. ....	T235-KK-12031	59.00	136	Opening 18'1" to 20' wide. ....	T235-KK-32031	57.65	136
To lock doors from outside only including 2 No. 525 Door Locks (page 469) Minimum lap of door over jamb is 1 1/2 inches				With one 516 Door Bolt (page 465) to bolt 3 doors from inside and one 525 Door Lock (page 469), to lock 3 doors from outside. Minimum lap of door over jamb is 2 inches.			
Opening up to 16' wide. ....	T235-KK-21631	60.00	124	Opening up to 16' wide. ....	T235-KK-41631	55.65	124
Opening 16'1" to 18' wide. ....	T235-KK-21831	62.00	132	Opening 16'1" to 18' wide. ....	T235-KK-41831	57.65	132
Opening 18'1" to 20' wide. ....	T235-KK-22031	65.00	140	Opening 18'1" to 20' wide. ....	T235-KK-42031	60.65	140

**Note**—Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. Direction Sheet showing erecting details furnished with hardware.  
\*Made so that the ends of the track are forced tightly against the bottom of the bracket, and to prevent the tracks from separating at the joints. This Lock Joint Bracket is illustrated in the lower left hand corner of the opposite page.

#### Discount

"K" Short Sets, Six Doors, 2 Sets of 3-doors Hinged Together  
Packed in One Box Complete Except that Straight Track, Locks and Locking Bolts are Omitted

Includes Brackets for opening 20 feet wide.  
Curved Track furnished with this set.

For the convenience of some of our customers who carry our Trolley Track, Locks and Locking Bolts in stock, we are in a position to furnish Short Sets at the following prices:

**Set No. S235-K-31**  
For No. 31 Track, per set \$48.60. Shipping weight 88 pounds.  
**Set No. S235-K-232**  
For No. 232 Track, per set \$68.00. Shipping weight 146 pounds.  
**Set No. S235-K-33**  
For No. 33 Track, per set \$80.00. Shipping weight 168 pounds.

#### Discount

**Headroom required above Top of Door, not Opening.**

For No. 31 Track 6 3/4 inches  
For No. 232 Track 7 1/2 inches  
For No. 33 Track 8 1/4 inches

Headroom may be decreased 1/4" on Nos. 31 and 232 Track Equipment and 1/2" on No. 33 Track Equipment, by using No. 7 style ceiling track brackets. A further reduction of 1/8" in headroom may be secured by sinking the hanger aprons into the top of the door.

Location of Bolt Holes and Bracket Spacings are given on page 132.



## Bolt Spacings for Brackets

For

# SlidaSide

Sets

Patented

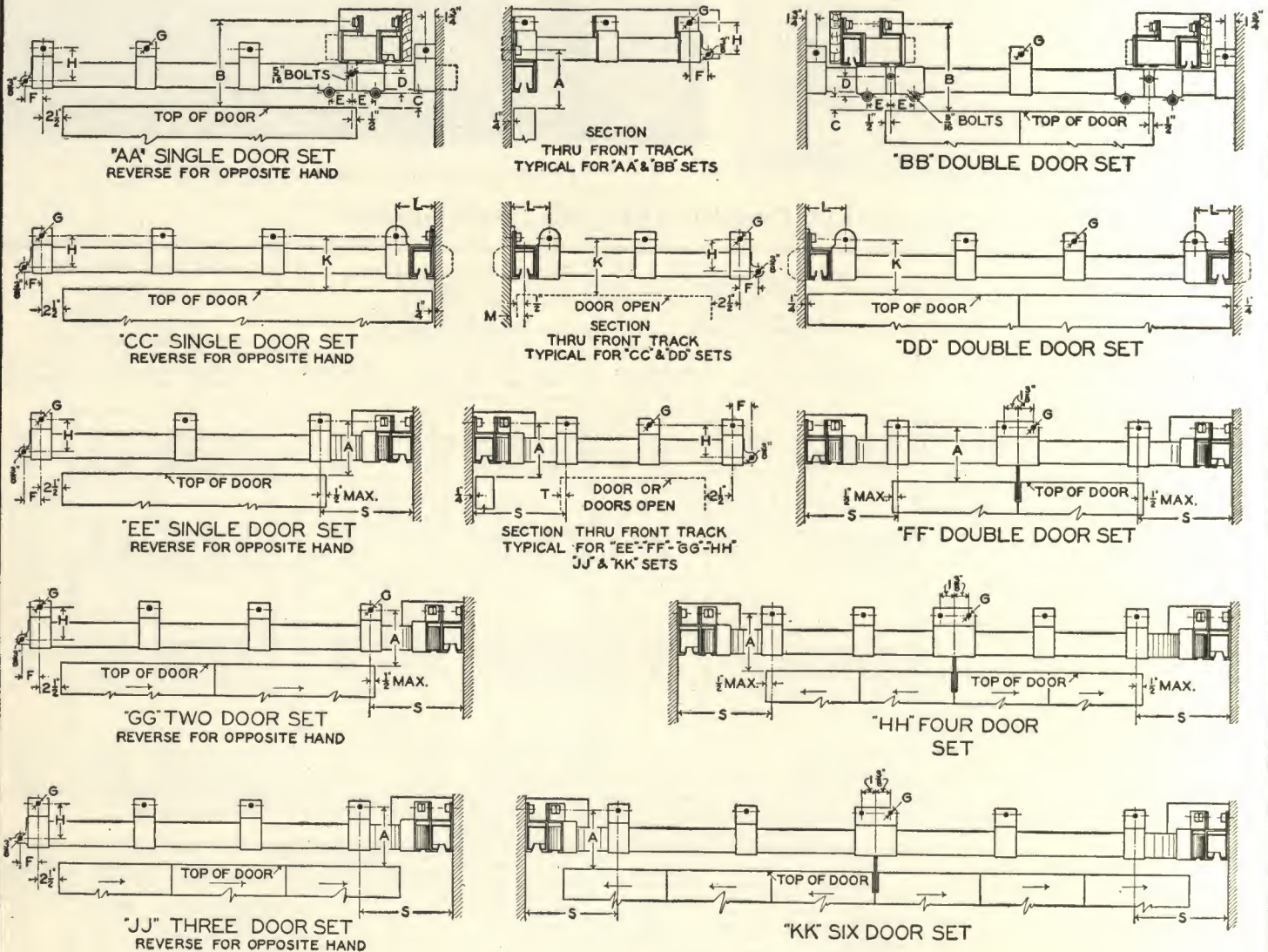


TABLE														
SIZE OF TRACK	A	B	C	D	E	F	G SIZE BOLT	H	K	L	M	S	T FOR EE GG-JJ SETS	T FOR FF HH-JJ SETS
31 & 35	5 $\frac{3}{4}$ "	8 $\frac{5}{8}$ "	1 $\frac{1}{4}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{4}$ "	1 $\frac{3}{4}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	5 $\frac{3}{8}$ "	3 $\frac{3}{4}$ "	1 $\frac{1}{8}$ "	25 $\frac{5}{8}$ "	1 $\frac{1}{2}$ "	1"
232	6 $\frac{15}{16}$ "	11 $\frac{1}{16}$ "	1 $\frac{11}{16}$ "	3 $\frac{5}{16}$ "	2 $\frac{7}{16}$ "	2 $\frac{1}{8}$ "	5 $\frac{5}{8}$ "	2 $\frac{7}{8}$ "	6 $\frac{11}{16}$ "	3 $\frac{3}{4}$ "	1 $\frac{7}{16}$ "	25 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	1 $\frac{3}{8}$ "
33	7 $\frac{1}{4}$ "	11 $\frac{1}{2}$ "	1 $\frac{3}{4}$ "	3 $\frac{1}{2}$ "	2 $\frac{9}{16}$ "	2 $\frac{5}{16}$ "	3 $\frac{3}{4}$ "	3 $\frac{3}{16}$ "	7"	4 $\frac{5}{8}$ "	1 $\frac{5}{8}$ "	25 $\frac{5}{8}$ "	1 $\frac{1}{2}$ "	1 $\frac{3}{8}$ "

NOTE:- WHEN WORKING IN MINIMUM HEADROOM  
FOR NO. 31 & 35 TRACK A = 5 $\frac{1}{4}$ " - B = 8" - C = 5 $\frac{5}{8}$ " - K = 4 $\frac{3}{8}$ "  
232 A = 6 $\frac{1}{8}$ " - B = 10 $\frac{5}{8}$ " - C = 1 $\frac{1}{8}$ " - K = 5 $\frac{11}{16}$ "  
33 A = 6 $\frac{1}{2}$ " - B = 10 $\frac{3}{4}$ " - C = 1" - K = 6 $\frac{1}{2}$ "

Fig. A-1664—This data shows bolt spacings for use of architects, engineers, and contractors, so that steel lintels may be punched in the shop, or so that bolts may be built into concrete or masonry lintel





## R-W No. 635 Garage Door Hardware



Fig. A-1665—Exterior View of a 635-RR Set

THE No. 635 hardware set corresponds in general respects with the No. 235 SlidaSide shown on the preceding pages, the door arrangement and movement being practically the same. The doors when open stand along the side wall at right angles to the opening, inside the building, and require a negligible amount of space for their operation in swinging around the corner.

The particular feature which distinguishes the No. 635 hardware, is the exceptionally narrow space between the jamb and the side wall in which the hardware can be installed, due to the No. 635 short radius corner bracket, and the Ball-Bearing Hangers, especially designed to operate in a short radius curve with a negligible amount of friction. Six inches or more of space between back edge of closed door and side wall, provides for free movement of the door.

Installations of No. 635 Hardware may be made with one or more doors in an opening of any width, the only limitation to the width of the opening being the corresponding side-wall space against which the doors must stand in open position.

Hardware mentioned in the following lists, cover openings with Single Doors sliding to one side; Double Doors, one of which slides to each side; Two Doors Hinged Together sliding to one side; and Two Pairs of Doors Hinged together, one pair of which slide to each side.

### Clearance Distances

Doorway with 3' space from jamb to side wall, but the distance from back edge of door (not opening) to side wall need not be more than 6".

The curves will be the same distance from side wall regardless of the distance from jamb to side wall.

### Clearance Distances

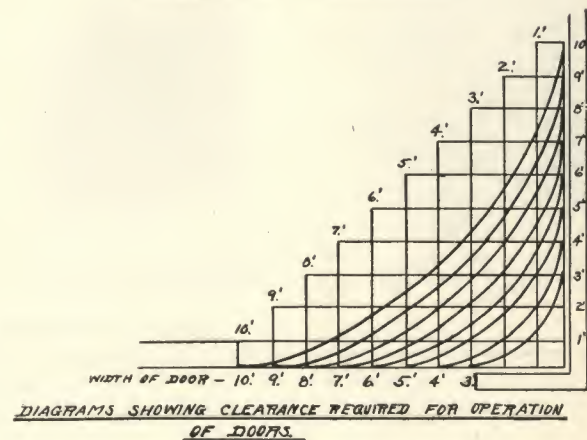


Fig A-1666—Clearance Diagram

Each of the square spaces in the diagram represent one foot. Curved lines indicate the line of travel of doors. The diagram is laid out for doors from 3 to 10' wide. The clearance lines are based on the width of each door and not on the width of the opening in the case of sets T and U, where two doors are hinged together.

Example: A door 8' wide would require in being opened a space of  $5\frac{1}{2}'$  from side wall at a point 1' from the front wall; 4' from side wall at a point 2' from the front wall; 2'10" from side wall at a point 3' from front wall; 2' from side wall at a point 4' from front wall; 1'5" from side wall at a point 5' from front wall; and 9" from side wall at a point 6' from front wall.



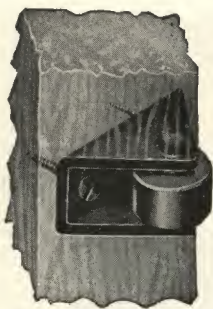
# Richards-Wilcox



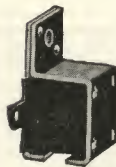
## No. 635 Parts



Four-Wheel Rigid Pendant Hangers  
No. 635-1 for No. 31 Track



No. 635 Corner Guide Roller



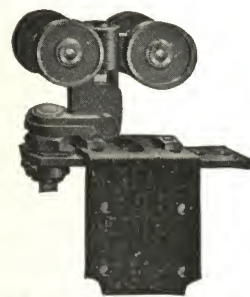
End Bracket  
No. 635-2x31



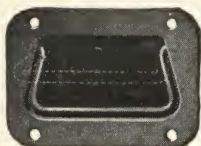
Center Bracket  
No. 635-1x31



Center Stop  
Bracket  
No. 635-12x31



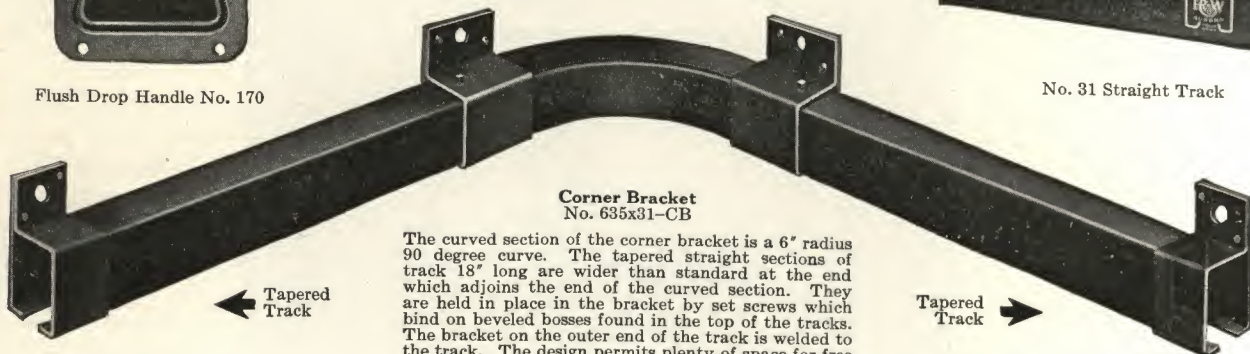
Four-Wheel Offset Hinged  
Pendant Hangers  
No. 635-3 for No. 31 track



Flush Drop Handle No. 170



Bow Handle  
No. 81



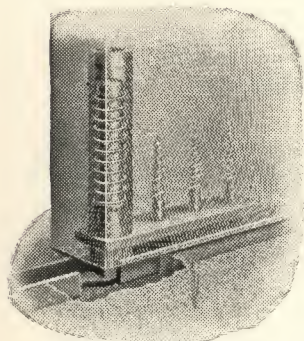
Corner Bracket  
No. 635x31-CB

← Tapered Track

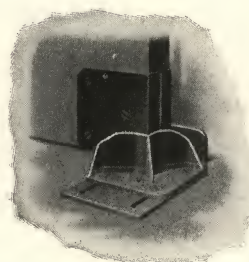
Tapered Track →



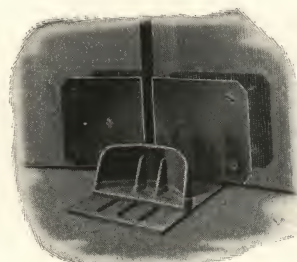
No. 31 Straight Track



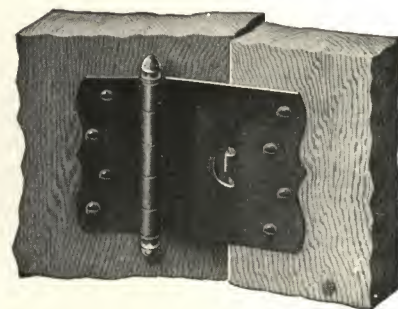
No. 635 F. G. Floor Guide  
and No. 635-TK Floor Guide  
Track



Floor End Stop No. 272  
Bumper Shoes, No. 435-72



Center Floor Guide No. 271  
Bumper Shoes, No. 435-72



Surface Hinge  
No. 635

### Detail of Hardware and List Price of Parts

DESCRIPTION	Light Weight Hardware using No. 31 Track For Doors Weighing up to 300 lbs. each 1 1/4" to 2 1/4" thick		
	Catalog Number	List Price	Shipping Wt., lbs.
Hangers, Rigid.....	635-1	\$4.00	4 1/4
Hangers, Hinged Pendant, each.....	635-3	4.00	5
Trolley Track, per foot.....	31	.25	1 1/2
Brackets, Center, each.....	1x31	.21	1
Brackets, Center Stop, each.....	12x31	.66	2 1/4
Brackets, Corner, each, With 18" of tapered track at each end.....	635x31-CB	3.50	10
Brackets, End, each.....	2x31	.25	1
Hinges, Surface, per pair.....	635-4"	1.20	2
Bow Handles, each.....	81-1	.27	1/2
Flush Drop Handles, each.....	170	.35	1/2
Floor End Stops, each.....	272	.70	2 1/2
Bumper Shoes, each.....	435-72	.12	1/4
Guide Rollers, each.....	635	.40	1/4
Corner Guide Strips, each.....	635	.32	3/4
Floor Guide, each.....	635-FG	1.10	3/4
Center Floor Guide, each.....	271	.90	3
Floor Guide Track, per foot.....	635-TK	.18	1/2
Floor Guide Track Curve 6" radius each.....	635-C	.80	1

Discount.....





Patented

## R-W No. 635 Corner Door Hardware for Single Doors

### Single Door "R" and "RR" Sets

Minimum Distance from edge of door (not opening), when closed, to side wall is 6 inches.

**Headroom required between Top of Corn Door and Top of Track Bracket**

For No. 31 Track . . . . . 7 1/8 inches

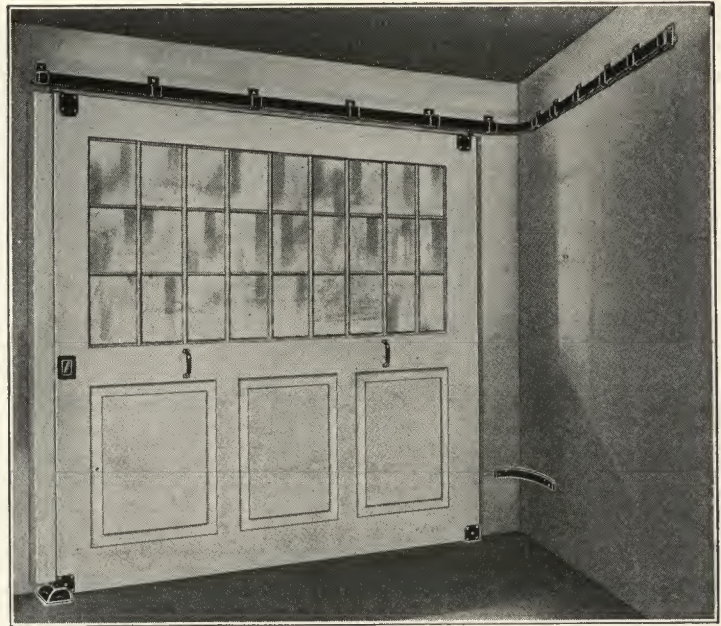


Fig. A-1667—Interior View of Private Garage—See center illustration on opposite page of Corner Bracket

### List Price for Complete "RR" Sets

The prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect Plus Locking Bolts as follows:

Sets RR-1, to lock doors from inside only, including 1 No. 524—1 Cane Bottom Bolt (page 473)  
 Opening up to 8' wide . . . . . \$24.00  
 Opening 8'1" to 9' wide . . . . . 24.75  
 Opening 9'1" to 10' wide . . . . . 25.50

Sets RR-2, to lock doors from inside only, including 1 No. 516 Door Bolt (page 465). Minimum lap of door over jamb is 2 inches  
 Opening up to 8' wide . . . . . 25.50  
 Opening 8'1" to 9' wide . . . . . 26.25  
 Opening 9'1" to 10' wide . . . . . 27.00

\*Sets RR-3, to lock doors from both inside and outside, including 1 No. 525 Door Lock (page 469).  
 Opening up to 8' wide . . . . . 26.85  
 Opening 8'1" to 9' wide . . . . . 27.60  
 Opening 9'1" to 10' wide . . . . . 28.35

Light Weight Hdw. using No. 31 Track For Doors Weighing up to 300 lbs. each 1 3/4" to 2 1/4" thick

List Price	Shipping Wt., lbs.
24.00	72
24.75	74
25.50	76
25.50	72
26.25	74
27.00	76
26.85	73
27.60	75
28.35	77

**Note**—\*When the No. 525 Door Lock is attached to the front edge of the door, it is advisable, though not necessary, to use the No. 635 Floor Guide, (listed page 453), to hold the back edge of the door tight against the casing.

Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra.

Direction Sheet showing erection details furnished with hardware.

If Wicket Entrance Door is wanted, see page 164 for details and prices of hardware.

### Directions for Ordering Complete Sets

**State**—Designation of set and kind of track and locking bolts wanted. Width of opening. Distance between jamb and side wall. Thickness of doors. Distance door laps on jamb. Always send sketch of floor plan with above dimensions inserted.

**Example Order of Complete Sets**—One Set CornR-Wise No. 635 Single Door Equipment RR-1 for No. 31 Track, with No. 524-1 Bolt. Opening 9' wide. 12" between jamb and side wall. Door 1 3/4" thick. Door laps on jamb 2".

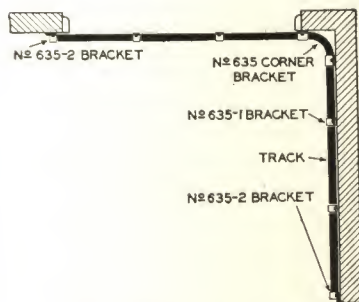


Fig. A-1668—Plan of Tracks

### "R" Short Sets for Single Doors

Packed in One Box Complete Except that Track, Locks and Locking Bolts are Omitted

For the convenience of dealers who carry our Trolley Track, Locks and Locking Bolts in stock, we are in a position to furnish a Short Set at the following price:

One "R" Short Set for 31 Track, weight 34 lbs., per set . . . . . \$15.25

**Example Order**—1 "R" Short Set, "CornR-Wise" Single Door, Equipment for No. 31 Track.

Discount.....

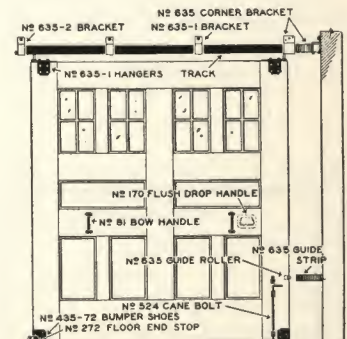


Fig. A-1669—Interior elevation, Set-RR-1. showing proper locations and names of 635 Parts, including one 424 Cane Bottom Bolt.





## R-W No. 635 Corner Door Hardware for Double Doors

Double Door "S" and "SS" Sets

Minimum distance from edge of door (not opening) when closed, to side wall is 6 inches

Headroom required between Top of Door and Top of Track Bracket

For No. 31 Track.....7 7/8"

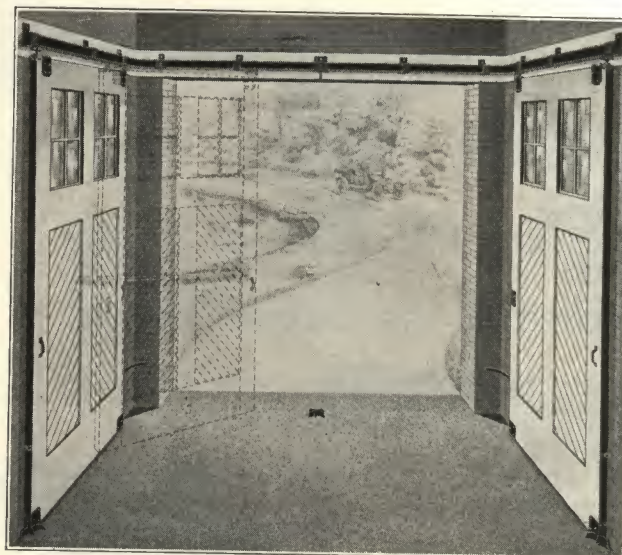


Fig. A-1670—Dotted Lines Indicate Position of Door when Partly open

### List Price for Complete "SS" Sets

The prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect Plus Locking Bolts as follows:

SS-1, to lock doors from inside only, including 2 No. 524-1 Cane Bottom Bolts (page 473)	
Opening up to 8' wide.....	
Opening 8'1" to 9' wide.....	
Opening 9'1" to 10' wide.....	
Sets SS-2, to lock doors from inside only, including 2 No. 516 Door Bolts (page 465). Minimum lap of door over jamb is 2 inches.	
Opening up to 8' wide.....	
Opening 8'1" to 9' wide.....	
Opening 9'1" to 10' wide.....	
*Sets SS-3, to lock doors from both inside and outside, including 1 No. 524-1 Cane Bottom Bolt (page 473) and 1 No. 525 Door Lock (page 469).	
Opening up to 8' wide.....	
Opening 8'1" to 9' wide.....	
Opening 9'1" to 10' wide.....	
*Sets SS-4, to lock doors from both inside and outside, including 1 No. 516 Door Bolt (page 465), and 1 No. 525 Door Lock (page 469). Minimum lap of door over jamb is 2 inches.	
Opening up to 8' wide.....	
Opening 8'1" to 9' wide.....	
Opening 9'1" to 10' wide.....	
*Sets SS-5, to lock doors from both inside and outside, including 1 No. 525 Door Lock (page 469).	
Opening up to 8' wide.....	
Opening 8'1" to 9' wide.....	
Opening 9'1" to 10' wide.....	

Light Weight Hdw. using No. 31 Track For Doors Weighing up to 300 lbs. each 1 3/4" to 2 1/4" thick

List Price	Shipping Wt., lbs.
\$43.00	101
43.75	103
44.50	105
47.00	101
47.75	103
48.50	105
45.85	102
46.60	104
47.35	106
47.35	102
48.10	104
48.85	106
45.00	99
45.75	101
46.50	103

Note—\*When the No. 525 Door Lock is attached to the front edge of the door, it is advisable, though not necessary, to use the No. 635 Floor Guide (listed page 453), to hold the back edge of the door tight against the casing.

Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra.

Direction Sheet showing erection details furnished with hardware.

If Wicket Entrance Door is wanted, see page 164 for details and prices of hardware.

### Directions for Ordering Complete Sets

State—Designation of set and kind of track. Width of opening. Distance between jambs and side wall. Thickness of doors. Distance door laps on jamb. Always send sketch of floor plans with above dimensions inserted.

Example Order of Complete Sets—One Set "CornR-Wise" No. 635 Double Door Equipment SS-1 for No. 31 Track, with No. 524-1 Bolt. Opening 9' wide, 12" between jambs and side wall. Door 1 3/4" thick. Doors lap on jambs 2".

### "S" Short Sets for Double Doors

Packed in One Box Complete Except that Track Locks and Locking Bolts are Omitted

For the convenience of dealers who carry our Trolley Track, Locks and Locking Bolts in stock, we are in a position to furnish a Short Set at the following price:

One "S" Short Set for 31 Track, weight 60 lbs., per set.....\$31.25

Example Order—1 S Short Set, "CornR-Wise," Double Door Equipment for No. 31 Track

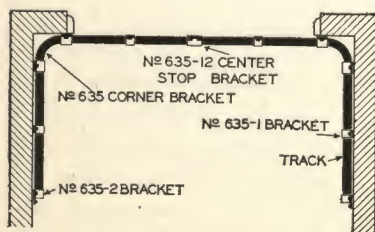


Fig. A-1671—Plan of Tracks.

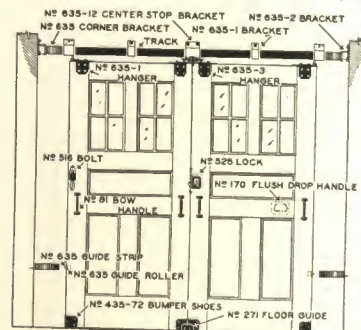


Fig. A-1672—Interior elevation showing proper location and names of 635 Parts for Double Doors, SS-4 Sets, including one 516 Door Bolt and one 525 Door Lock.

Discount.....

See page 325 for Expansion Shields and Bolts





## R-W No. 635 Corner Door Garage Door Hardware for Two Doors Hinged Together and Sliding to One Side

### "T" and "TT" Sets

Minimum Distance from edge of door (not opening) when closed, to side wall is 6 inches, where Distance is more than 26 inches, 235 SlidaSide Sets GG (Page 128) should be used.

Headroom required between Top of Door and Top of Track Bracket For No. 31 Track is  $7\frac{1}{8}$  inches



Fig. A-1673—Notice narrow space between right hand jamb and side wall

### List Price for Complete "TT" Sets

The prices include "TT" hardware for set desired together with all Wall Bolts and Screws necessary to erect Plus Locking Bolts as follows:

Light Weight Hdw. using No. 31 Track For Doors Weighing up to 300 lbs. each  $1\frac{3}{4}$ " to  $2\frac{1}{4}$ " thick

Sets TT-1, to lock doors from inside only, including 1 No. 524-1 Cane Bottom Bolt (page 473).  
Opening up to 8' wide .....  
Opening 8'1" to 9' wide .....  
Opening 9'1" to 10' wide .....

List Price  
\$33.75  
34.50  
35.25

Shipping Wt., lbs.

83  
85  
87

Sets TT-2, to lock doors from inside only, including 1 No. 516 Door Bolt (page 465). Minimum lap of door over jamb is two inches.  
Opening up to 8' wide .....  
Opening 8'1" to 9' wide .....  
Opening 9'1" to 10' wide .....

35.25  
36.00  
36.75

83  
85  
87

\*Sets TT-3, to lock doors from inside or outside, including 1 No. 525 Door Lock (page 469).  
Opening up to 8' wide .....  
Opening 8'1" to 9' wide .....  
Opening 9'1" to 10' wide .....

36.60  
37.35  
38.10

84  
86  
88

Note—\*When the No. 525 Door Lock is attached to the front edge of the door, it is advisable, though not necessary, to use the No. 635 Floor Guide (listed page 453), to hold the back edge of the door tight against the casing.

Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra. Direction Sheet showing erection details furnished with hardware.

If Wicket Entrance Door is wanted, see page 164, for details and prices of hardware.

### Directions for Ordering Complete Sets

State—Designation of set and number of track. Width of opening. Thickness of doors. Distance between jamb and side wall. Distance door laps on jamb. Always send sketch of floor plan with above dimensions inserted.

Example Order of Complete Sets—One Set, "CornR-Wise" No. 635 Two Doors Hinged Together Equipment "TT-1" for No. 31 Track, with No. 524-1 Bolts. Opening 9' wide. 12' between jamb and side wall. Doors  $1\frac{3}{4}$ " thick. Doors lap on jamb 2".

### "T" Short Sets for Two Doors Hinged Together

Packed in One Box Complete Except that Track Locks and Locking Bolts are Omitted

For the convenience of dealers who carry our Trolley Track, Locks and Locking Bolts in stock, we are in a position to furnish a Short Set at the following price:

One T Short Set for 31 Track, weight 44 lbs., per set. ....\$26.40

Example Order—1 T Short Set, No. 635, "CornR-Wise", Two Doors Hinged Together, Equipment for No. 31 Track.

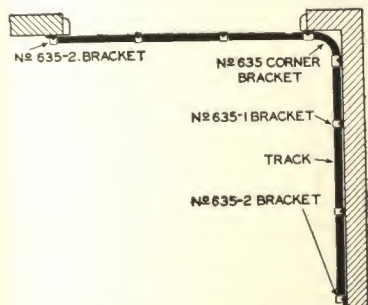


Fig. A-1674—Plan of Tracks

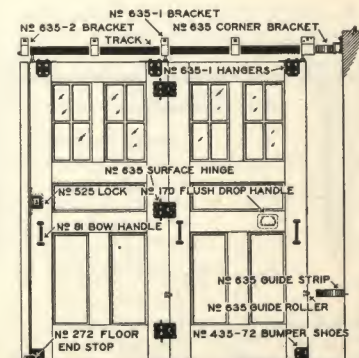


Fig. A-1675—Interior elevation showing proper location and names of 635 Parts for Set TT-3, including one 625 Door Lock

Discount.....





## R-W No. 635 Corner Door Garage Door Hardware for Two Pairs of Doors Hinged Together One Pair Sliding to the Right, One Pair Sliding to the Left "U" and "UU" Sets

Minimum Distance from edge of door (not opening) when closed, side wall is 6 inches. When distance is more than 26 inches, 235 Slida-Side Sets HH (Page 129) should be used.



Fig. A-1676—If corner space permits consider 235 HH sets on page 129.

### List Price for Complete "UU" Sets

These prices include complete hardware for set desired together with all Wall Bolts and Screws necessary to erect Plus Locking Bolts as follows:

Sets UU-1, to lock doors from inside only, including 2 No. 524-1 Cane Bottom Bolts (page 473).	
Opening up to 8' wide.....	
Opening 8'1" to 10' wide.....	
Opening 10'1" to 12' wide.....	
Opening 12'1" to 14' wide.....	
Opening 14'1" to 16' wide.....	
Sets UU-2, to lock doors from inside only, including 2 No. 516 Door Bolts (page 465). Minimum lap of door over jamb is 2 inches.	
Opening up to 8' wide.....	
Opening 8'1" to 10' wide.....	
Opening 10'1" to 12' wide.....	
Opening 12'1" to 14' wide.....	
Opening 14'1" to 16' wide.....	
*Sets UU-3, to lock doors from both inside and outside, including 1 No. 524-1 Cane Bottom Bolt (page 473) and 1 No. 525 Door Lock (page 469).	
Opening up to 8' wide.....	
Opening 8'1" to 10' wide.....	
Opening 10'1" to 12' wide.....	
Opening 12'1" to 14' wide.....	
Opening 14'1" to 16' wide.....	
*Sets UU-4, to lock doors from both inside and outside, including 1 No. 516 Door Bolt (page 465) and 1 No. 525 Door Lock (page 469). Minimum lap of door over jamb is 2 inches.	
Opening up to 8' wide.....	
Opening 8'1" to 10' wide.....	
Opening 10'1" to 12' wide.....	
Opening 12'1" to 14' wide.....	
Opening 14'1" to 16' wide.....	
*Sets UU-5, to lock doors from both inside and outside, including 1 No. 525 Door Lock (page 469).	
Opening up to 8' wide.....	
Opening 8'1" to 10' wide.....	
Opening 10'1" to 12' wide.....	
Opening 12'1" to 14' wide.....	
Opening 14'1" to 16' wide.....	

Light Weight Hdw.  
using  
No. 31 Track  
For Doors Weighing  
up to 300 lbs. each  
1 3/4" to 2 1/4" inch

List Price	Shipping Wt., lbs.
\$58.40	124
59.90	130
61.40	136
62.90	142
64.40	148
61.40	124
62.90	130
64.40	136
65.90	142
67.40	148
61.25	125
62.75	131
64.25	137
65.75	143
67.25	149
62.75	124
64.25	130
65.75	136
67.25	142
68.75	148
60.35	121
61.85	127
63.35	133
64.85	139
66.35	145

**Note**—When the No. 525 Door Lock is attached to the front edge of the door, it is advisable, though not necessary to use the No. 635 Floor Guide (listed page 453), to hold the back edge of the door tight against the casing.  
Sets include Lag Screws for attaching track brackets. If attachment is to be made to brick or concrete, expansion shields should be ordered extra.  
Direction Sheet showing erecting details furnished with hardware.  
If Wicket Entrance Door is wanted, see page 164 for details and prices of hardware.

### Directions for Ordering Complete Sets

**State**—Designation of set and kind of track. Width of opening. Thickness of doors. Distance between jamb and side walls on each side. Distance doors lap on jamb. Always send sketch of floor plans with above dimensions inserted.  
**Example Order of Complete Sets**—One Set CornR-Wise No. 635 2 pairs of Doors Hinged Together UU-1 for No. 31 Track, with No. 524-1 Bolts. Opening 10' wide. Doors 2 1/4" thick. Distance between jamb and side wall, 12" on right side, 14" on left. Doors laps on jamb 2".

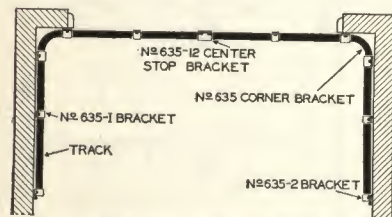


Fig. A-1677—Plan of Tracks

**Headroom Required**—Between Top of Door and Top of Track Bracket for No. 31 Track is 7 1/8 inches.

### "U" Short Sets for Two Pairs of Doors Hinged Together

Packed in One Box Complete Except that Track, Locks and Locking Bolts are Omitted

For the convenience of dealers who carry our Trolley Track, Locks and Locking Bolts in stock, we are in a position to furnish a Short Set at the following price:

1 "U" Short Set for 31 Track, weight 120 lbs., per set..\$49.75

**Example Order**—1 "U" Short Set, No. 635 "CornR-Wise" Two pairs of Doors Hinged Together Equipments for No. 31 Track

Discount.....

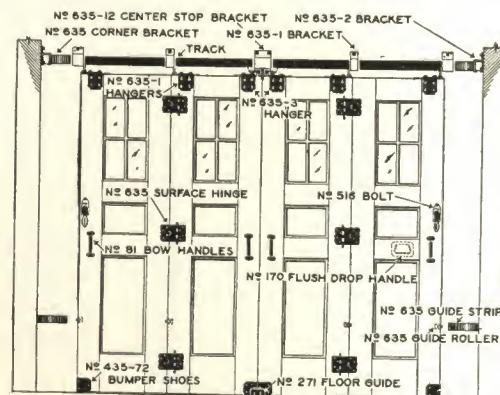
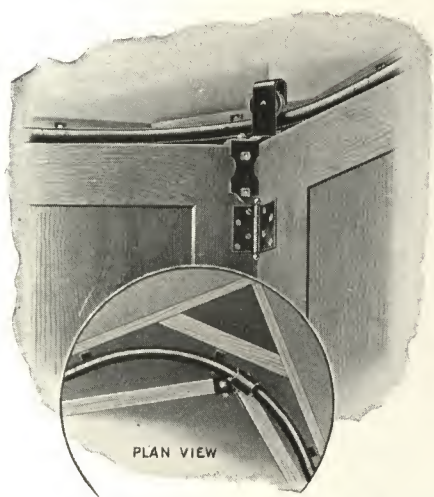


Fig. A-1678—Interior elevation showing proper location and names of 635 Parts, Set UU-2, including two No. 516 Door Bolts



## R-W No. 835 Round Runner Garage Door Hardware



For  
3,  
4  
and  
6  
Doors



Fig. A-1679—Detailed illustration of hanger, track and surface hinge.

Hardware made of steel, except hanger wheel, which is malleable iron. Hanger wheel is  $2\frac{1}{2}$  ins. in diameter. Apron  $2\frac{1}{4}$  ins. wide by 5 ins. long.

Fig. A-1680—Single car garage doorway having 3-door "Round-Runner" equipment—doors in open position.

THIS hardware is intended for light doors from  $1\frac{3}{4}$  inches to  $2\frac{1}{4}$  inches thick, and not more than 40 inches wide, that run around the corner inside the garage and stand out of the way against the side wall when the doors are open. Provides for entrance door without additional doorway. One set of fixtures is sufficient for handling a 3-door outfit as in above illustration.

If larger opening is required, 6-doors may be in one opening by installing two sets of fixtures.

A four door opening requires 1 three door set plus  $1\frac{1}{2}$  pair of butts. The fourth door is hinged to the jamb on the side of opening opposite from where the curved track is used.

### Headroom Required

Between top of door and top of hanger is  $6\frac{1}{2}$  inches.

### Three Door Outfit for Eight Foot Opening Packed in One Box

All hardware required to completely equip three doors, including track, packed in a strong wooden box, as follows:

- 3 No. 835 Hangers.
- 1 No. 835 Track Curve, 18-inch radius, 90 degrees.
- 8 Pieces No. 542-B Track, each 24 inches long, with Brackets.
- 3 Pair Surface Hinges, 435- $2\frac{1}{2}$ "x4".
- 2 No. 835 Stay Rollers.
- 1 No. 272 End Floor Stop.
- 2 No. 71-2 Bow Handles.
- 1 No. 835 Door Bolt.
- 2 No. 435-72 Bumper Shoes.
- 1 No. 119 Door Holder.
- 1 Package Bolts and Screws.
- 1 635 Guide Roller.

### Erecting Instructions Packed with Hardware

Set for three-door 10-foot opening contains 10 pieces of No. 835 Track, each 24 inches long, otherwise is identical with set for 8-foot opening.

### List Prices for Complete Sets

	Price	Wt., Lbs.
Set No. 835-38		
3-Door Set, 8' Opening, per set...	\$15.00	55
Set No. 835-310		
3-Door Set, 10' Opening, per Set...	16.00	60
Set No. 835-4108		
4-Door Set, 10'8" Opening, per set.	18.00	58
Set No. 835-412		
4-Door Set, 12'8" Opening, per set.	19.00	63
Set No. 835-616		
6-Door Set, 16' Opening, per set...	30.00	110
Set No. 835-620		
6-Door Set, 20' Opening, per set...	32.00	112

Discount.....

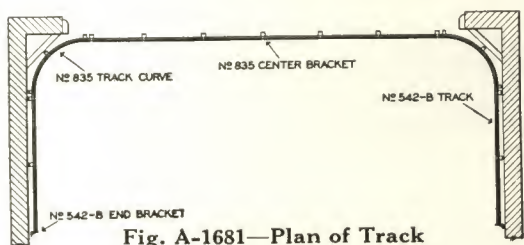


Fig. A-1681—Plan of Track

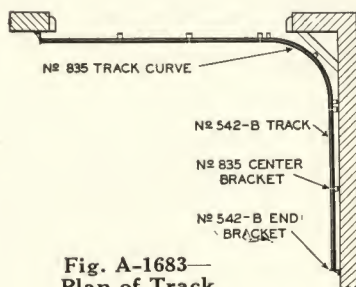
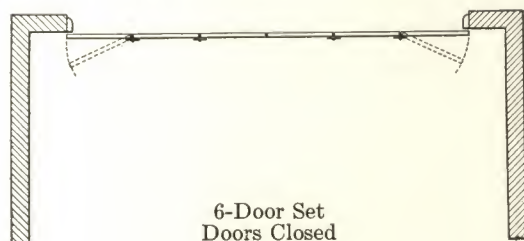
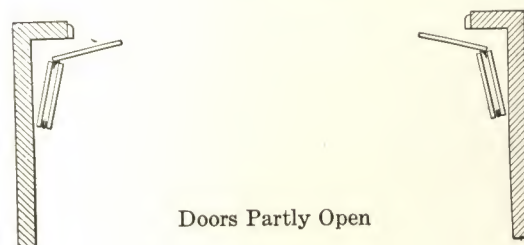


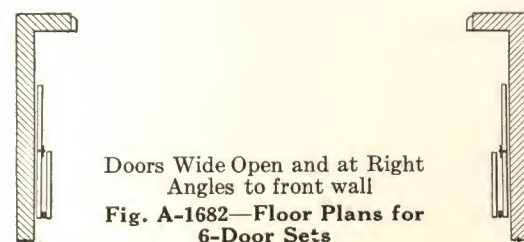
Fig. A-1683—Plan of Track



6-Door Set  
Doors Closed

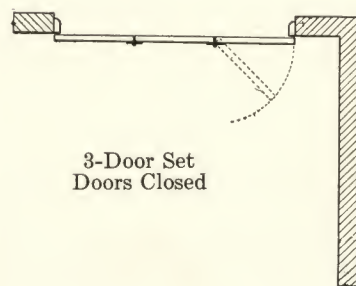


Doors Partly Open

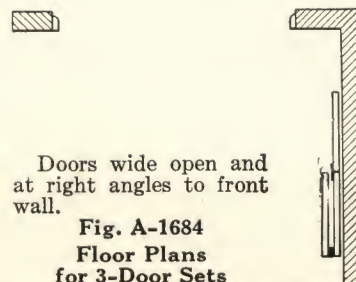


Doors Wide Open and at Right  
Angles to front wall

Fig. A-1682—Floor Plans for  
6-Door Sets



3-Door Set  
Doors Closed



Doors wide open and  
at right angles to front  
wall.

Fig. A-1684  
Floor Plans  
for 3-Door Sets



## R-W No. 735 and 1735 Flat Track Garage Door Hardware for 3, 4, 5, and 6 Door Openings

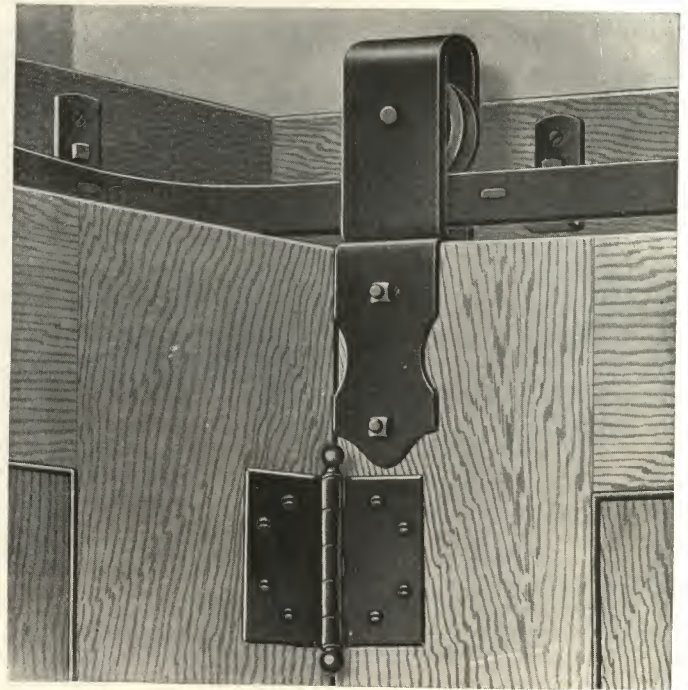
See Previous Page for 3 and 6-Door Floor Plans

Illustration at right shows Roller-Bearing Swivel Hangers for use on Three Doors Hinged Together

This hardware is intended for light doors from  $1\frac{3}{4}$  inches to  $2\frac{1}{4}$  inches thick, and not more than 40 inches wide, that run around the corner inside the garage and stand out of the way against the side wall when the doors are open. Provides for entrance door without additional doorway.

Hanger apron adjustable for doors  $1\frac{3}{4}$ " to  $2\frac{1}{4}$ " in thickness. Swivel hanger used with No. 50 track. Hanger cannot jump the track. Hanger aprons  $2\frac{1}{4}$ " wide by 5" long. Finish, black enamel.

Headroom required between top of door and top of hanger is  $5\frac{3}{4}$  inches.



### List Prices and Amount of Hardware Required for 3-Door Sets.

Material	No. 735-8 Sets For 8 foot Openings (Track Bundled)	No. 735-10 Sets For 10 foot Openings (Track Bundled)	*No. 1735-8 Sets For 8 foot Openings (Track Packed in Box)	*No. 1735-10 Sets For 10 foot Openings (Track Packed in Box)
No. 735 Hangers	3	3	3	3
No. 50 Track	2 pieces 4 ft. long. 1 piece 8 ft. long (Including Brackets)	2 pieces 5 ft. long. 1 piece 10 ft. long (Including Bracket)	6 pieces 28 in. long Including No. 735 (Special Joint Brackets)	8 pieces 28 in. long Including No. 735 (Special Joint Brackets)
No. 435— $2\frac{1}{2}$ " x 4" Surface Hinges	2 pair	2 pair	2 pair	2 pair
No. 835 Stay Rollers	2	2	2	2
No. 71-1 Bow Handles	2	2	2	2
No. 735-6" Hinged Hasp	1	1	1	1
No. 635 Guide Roller	1	1	1	1
Pkg. Bolts and Screws	1	1	1	1
Weight per Set	34½ lbs.	36½ lbs.	34½ lbs.	36½ lbs.
List Price 3-Door Set	\$8.00	\$8.50	\$8.00	\$8.50

### Short Sets Consist of Hangers and Carriage Bolts Only.

No. 735 Short Sets	Packed 3 hangers with carriage bolts in metal edge box. Weight, $8\frac{1}{2}$ lbs. Per Set.....	\$3.50
--------------------	--	--------

### How to Equip 4, 5 and 6-Door Openings.

4-Door Sets	Use one 3-door set, plus $1\frac{1}{2}$ pair of Butts.
5-Door Sets	Use two 3-door sets.
6-Door Sets	Use two 3-door sets.

Note—\*It will be noticed that the 1735 sets are the same as the 735 sets except that the track in the 1735 sets comes in shorter lengths and is packed with special Joint Brackets in the box with the other hardware.

Discount.....



## Paralled Sliding Garage Door Hardware

Two and Three-Track, Bracket and Weatherstrip Assemblies.

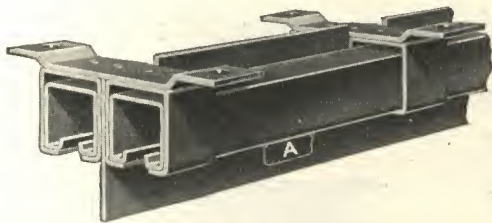


Fig. A-1686—Two-Track, Bracket and Weatherstrip Assembly

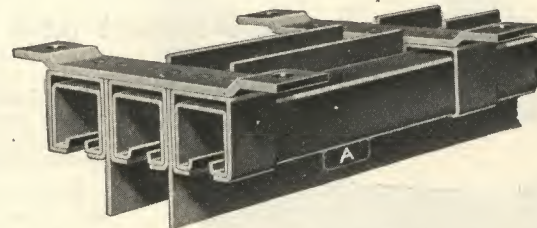


Fig. A-1687—Three-Track, Bracket and Weatherstrip Assembly

### Two-Track, Bracket and Weatherstrip Assemblies.

No. 556-2	Two-Track, Bracket and Weatherstrip Assembly, using No. 31 track,	(For doors up to 2" thick).	Weight, 7½ lbs. Per ft.	\$1.95
No. 557-2	Two-Track, Bracket and Weatherstrip Assembly, using No. 32 track,	(For doors up to 2" thick).	Weight, 9 lbs. Per ft.	2.50
No. 558-2	Two-Track, Bracket and Weatherstrip Assembly, using No. 33 track,	(For doors up to 2¾" thick).	Weight, 14½ lbs Per ft.	3.70
No. 559-2	Two-Track, Bracket and Weatherstrip Assembly, using No. 232 track,	(For doors up to 2¼" thick).	Weight, 12 lbs. Per ft.	3.10

### Three-Track, Bracket and Weatherstrip Assemblies.

No. 556-3	Three-Track, Bracket and Weatherstrip Assembly, using No. 31 track,	(For doors up to 2" thick).	Weight, 12½ lbs. Per ft.	3.05
No. 557-3	Three-Track, Bracket and Weatherstrip Assembly, using No. 32 track,	(For doors up to 2" thick).	Weight, 14 lbs. Per ft.	4.35
No. 558-3	Three-Track, Bracket and Weatherstrip Assembly, using No. 33 track,	(For doors up to 2¾" thick).	Weight, 23½ lbs. Per ft.	6.40
No. 559-3	Three-Track, Bracket and Weatherstrip Assembly, using No. 232 track,	(For doors up to 2¼" thick).	Weight, 20 lbs. Per ft.	5.45

**Note**—The letter A on the weatherstripping, in the above illustrations, shows the location of plates, which may be removed when it is desired to get at the adjusting bolts of the hangers.

Discount.....



Fig. A-1688—Showing No. 29 Double Brackets, with track

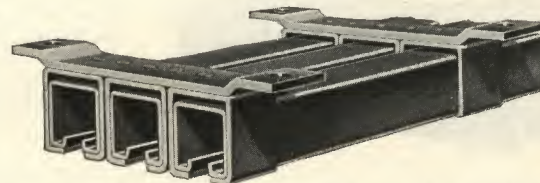


Fig. A-1689—Showing No. 31 Triple Brackets, with Track

### List Price of Double Brackets.

No. 29x 31	Bracket for doors up to 2" thick.	Weight 2½ lbs.	Each.....	\$ .66
No. 29x 32	Bracket for doors up to 2" thick.	Weight 4½ lbs.	Each.....	.93
No. 29x 33	Bracket for doors up to 2¾" thick.	Weight 8½ lbs.	Each.....	1.35
No. 29x232	Bracket for doors up to 2¼" thick.	Weight 6 lbs.	Each.....	1.05

### List Price of Triple Brackets.

No. 31x 31	Bracket for doors up to 2" thick.	Weight 4½ lbs.	Each.....	\$1.35
No. 31x 32	Bracket for doors up to 2" thick.	Weight 6 lbs.	Each.....	1.75
No. 31x 33	Bracket for doors up to 2¾" thick.	Weight 14 lbs.	Each.....	2.40
No. 31x232	Bracket for doors up to 2¼" thick.	Weight 9 lbs.	Each.....	2.00

**Note**—No. 5 Brackets are used for single track, overhead attachments. See page 195 for prices. Above prices are for the brackets only. Track is priced on page 193.

Discount.....

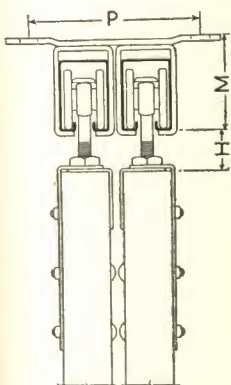


Fig. A-1690

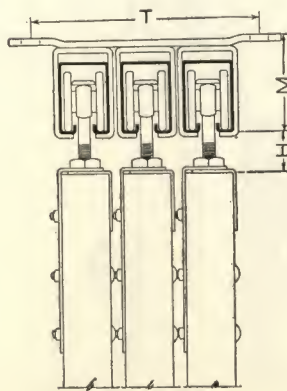


Fig. A-1691

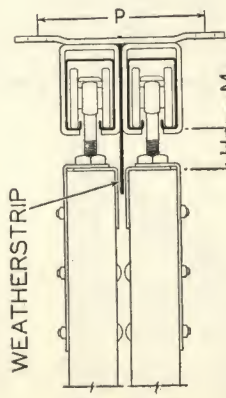


Fig. A-1692

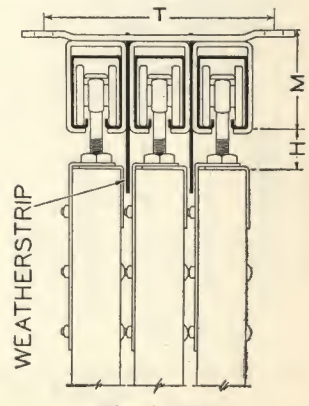


Fig. A-1693

Cross-sections showing overhead bracket attachments without weatherstrips. See page 143 for dimensions.

Cross-Sections showing overhead bracket attachments with weatherstrips. See page 143 for dimensions.

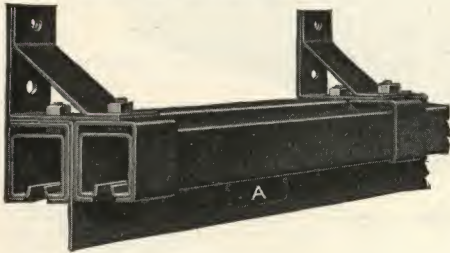


## R-W Parallel Sliding Garage Door Hardware

(Continued)

### Track Bracket and Weatherstrip Assemblies for:

#### Side Wall Attachment

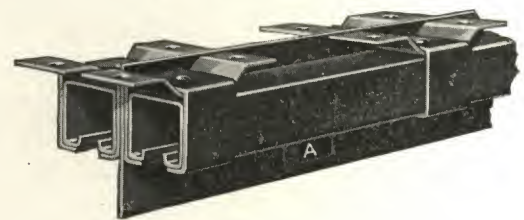


The illustrations on this page show complete assemblies of tracks, brackets and weatherstrips, shipped complete as assembled units.

Brackets are spaced on approximately 2-foot centers.

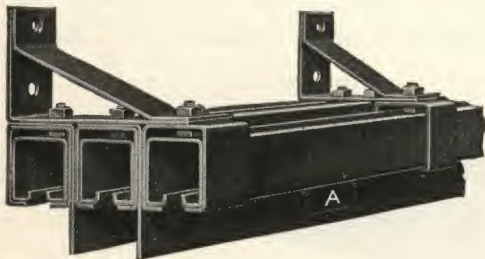
**Wall Attachment**—The assemblies shown at the left are used for doors operating on the inside or outside wall of a building. Track brackets are attached to the side wall.

#### Overhead Attachment

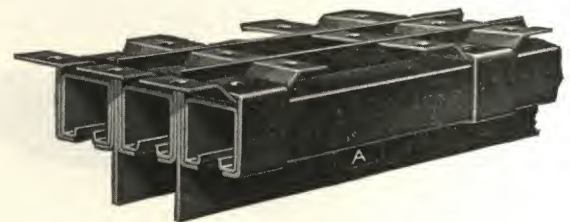


No. 256-2 Two-Trk. Assm. using 31 trk.	Wt. 8 1/4 lbs.	Per ft. \$1.95
No. 257-2 Two-Trk. Assm. using 32 trk.	Wt. 9 1/2 lbs.	Per ft. 2.50
No. 258-2 Two-Trk. Assm. using 33 trk.	Wt. 14 3/4 lbs.	Per ft. 3.70
No. 259-2 Two-Trk. Assm. using 232 trk.	Wt. 12 3/4 lbs.	Per ft. 3.10

No. 356-2 Two-Trk. Assm. using 31 trk.	Wt. 7 lbs.	Per ft. \$1.95
No. 357-2 Two-Trk. Assm. using 32 trk.	Wt. 8 lbs.	Per ft. 2.50
No. 358-2 Two-Trk. Assm. using 33 trk.	Wt. 13 lbs.	Per ft. 3.70
No. 359-2 Two-Trk. Assm. using 232 trk.	Wt. 11 lbs.	Per ft. 3.10



**Overhead Attachment**—The assemblies shown at the right are used when doors operate under the lintel in the doorway. Each single run of track, with brackets and one weatherstrip, is assembled separately for convenience of installing.



No. 256-3 Three-Trk. Assm. using 31 trk.	Wt. 14 1/2 lbs.	Per ft. \$3.05
No. 257-3 Three-Trk. Assm. using 32 trk.	Wt. 15 1/2 lbs.	Per ft. 4.35
No. 258-3 Three-Trk. Assm. using 33 trk.	Wt. 23 1/2 lbs.	Per ft. 6.40
No. 259-3 Three-Trk. Assm. using 232 trk.	Wt. 20 3/4 lbs.	Per ft. 5.45

No. 356-3 Three-Trk. Assm. using 31 trk.	Wt. 12 lbs.	Per ft. \$3.05
No. 357-3 Three-Trk. Assm. using 32 trk.	Wt. 13 lbs.	Per ft. 4.35
No. 358-3 Three-Trk. Assm. using 33 trk.	Wt. 22 lbs.	Per ft. 6.40
No. 359-3 Three-Trk. Assm. using 232 trk.	Wt. 19 lbs.	Per ft. 5.45

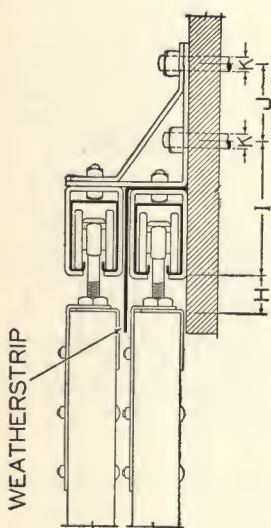


Fig. A-1694

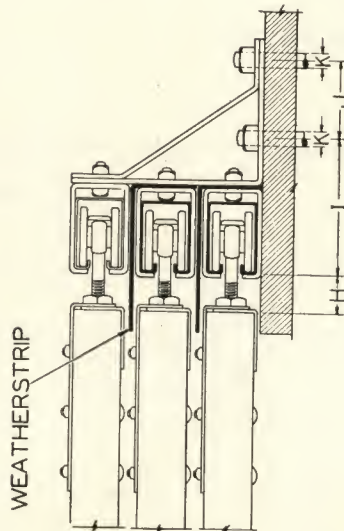


Fig. A-1695

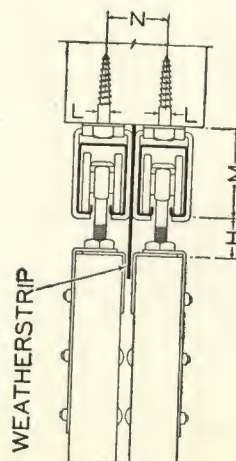


Fig. A-1696

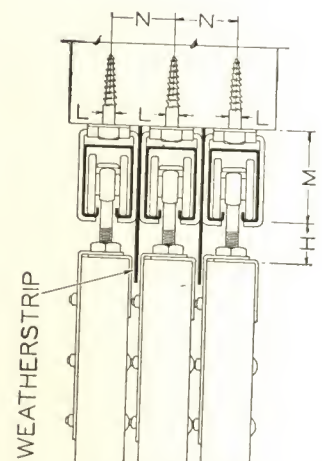


Fig. A-1697

Cross-Section showing wall bracket attachment with weatherstrip. See next page for dimensions

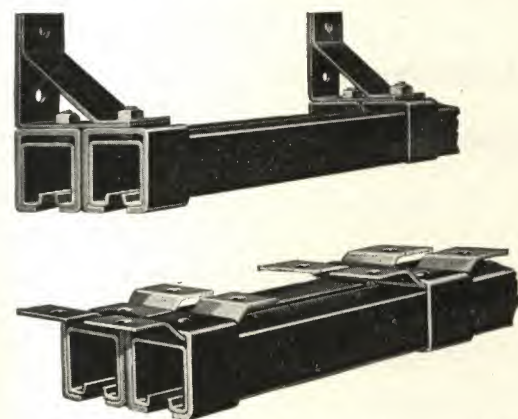
Cross-Sections showing overhead bracket attachment with weatherstrip. See next page for dimensions

**Note**—The letter A, on the weatherstripping, in the above illustrations, shows the location of plates, which may be removed when it is desired to get at the adjusting bolts of the hangers.

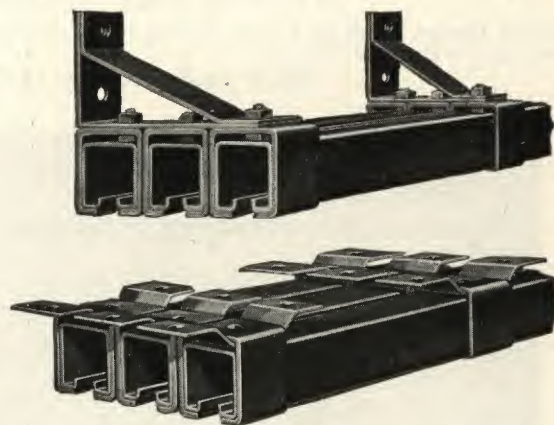


## R-W Parallel Track and Brackets

## Without Weatherstrips



Illustrations of  
Double and Triple  
Brackets  
Supporting Parallel  
Tracks Without  
Weatherstrips



No. 22 Double Bracket and No. 33 Triple Bracket are used for parallel tracks, side wall attachment, as illustrated below, without weatherstrips. Can be furnished without the first and second brackets proper, which are shown in light color in the illustrations, for supporting a single track extended from the wall when so specified. Tracks with weatherstrips are illustrated on opposite page.

### List Price of Double Brackets

No. 22 x 31 Bracket for doors up to 2" thick. Weight 2 3/4 lbs. Each.	\$0.66
No. 256-2 x 31 Bracket for doors 2 1/4" to 2 5/8" thick. Weight 2 3/4 lbs. Each.	.66
No. 22 x 32 Bracket for doors up to 2" thick. Weight 4 1/2 lbs. Each.	.93
No. 257-2 x 32 Bracket for doors 2 1/4" to 2 5/8" thick. Weight 4 1/2 lbs. Each.	.93
No. 22 x 33 Bracket for doors up to 2 3/4" thick. Weight 7 1/2 lbs. Each.	1.35
No. 258-2 x 33 Bracket for doors 3" to 3 1/2" thick. Weight 7 1/2 lbs. Each.	1.35
No. 22 x 232 Bracket for doors up to 2 1/4" thick. Weight 5 3/4 lbs. Each.	1.20
No. 259-2 x 232 Bracket for doors 2 1/2" to 2 3/4" thick. Weight 5 3/4 lbs. Each.	1.20

### List Price of Triple Brackets

No. 33 x 31 Bracket for doors up to 2" thick. Weight 4 1/4 lbs. Each.	1.05
No. 256-3 x 31 Bracket for doors 2 1/4" to 2 5/8" thick. Weight 4 1/4 lbs. Each.	1.05
No. 33 x 32 Bracket for doors up to 2" thick. Weight 5 3/4 lbs. Each.	1.35
No. 257-3 x 32 Bracket for doors 2 1/4" to 2 5/8" thick. Weight 5 3/4 lbs. Each.	1.35
No. 33 x 33 Bracket for doors up to 2 3/4" thick. Weight 10 1/4 lbs. Each.	2.00
No. 258-3 x 33 Bracket for doors 3" to 3 1/2" thick. Weight 10 1/4 lbs. Each.	2.00
No. 33 x 232 Bracket for doors up to 2 1/4" thick. Weight 8 1/2 lbs. Each.	1.75
No. 259-3 x 232 Bracket for doors 2 1/2" to 2 3/4" thick. Weight 8 1/2 lbs. Each.	1.75

Note—No. 7 Brackets are used for parallel tracks, overhead attachment. See page 195 for prices. Discount

### List Prices and Specifications of Door Hangers for Sets Listed on Pages 144 to 151

Roller-Bearing Hangers, packed without track brackets.			Ball-Bearing Hangers, packed without track brackets.			Trk. No.	For doors weighing lbs.	Thick- ness of doors	Dimensions Apply to All Cross-Sectional Runs of Parallel Tracks											
No.	Per Pair		No.	Per Pair					"H" for Roller- Bearing Hangers		"H" for Ball- Bearing Hangers		I	J	Diameter of bracket bolt		M	N *O	P	T
	List Price	Shipping Wt., lbs.		List Price	Shipping Wt., lbs.				Mini- mum	Maxi- mum	Mini- mum	Maxi- mum			K	L				
20-2	\$2. 05	8	20 1/2 B	\$3. 00	6 1/2	31	300	1 3/4-2 1/4	1 1/4	2 1/2	7/8	2 3/8	4 3/4	2 3/4	1 1/2	1 1/2	3 1/2	2 5/8	6 5/8	9
25-1	2. 25	11 1/2	27 1/2 B.1	4. 40	9	31	400	1 3/4-2	1 1/4	2 1/2	7/8	2 3/8	4 3/4	2 3/4	1 1/2	1 1/2	3 1/2	2 5/8	6 5/8	9 1/2
25-2	2. 25	11 1/2	27 1/2 B.2	4. 40	9	31	400	2 1/4-2 3/4	1 1/4	2 1/2	7/8	2 3/8	4 3/4	2 3/4	1 1/2	1 1/2	3 1/2	2 5/8	6 5/8	9 1/2
28V-1	3. 20	12 1/2	28 1/2 B.1	5. 50	11	32	500	1 3/4-2	1 1/4	2 1/2	7/8	2 3/8	4 3/4	3 1/4	1 1/2	1 1/2	3 1/2	2 1/2	7	9 1/2
28V-2	3. 20	12 1/2	28 1/2 B.2	5. 50	11	32	500	2 1/4-2 3/4	1 1/4	2 1/2	7/8	2 3/8	4 3/4	3 1/4	1 1/2	1 1/2	3 1/2	2 1/2	7	9 1/2
29V-1	4. 60	16	29 1/2 B.1	6. 25	14	232	600	1 3/4-2	1 1/4	3 3/4	7/8	1 3/4	5 1/2	3 1/2	3/4	5/8	4 3/8	2 1/8	7 5/8	10 1/2
29V-2	4. 60	16	29 1/2 B.2	6. 25	14	232	600	2 1/4-2 3/4	1 1/4	3 3/4	7/8	1 3/4	5 1/2	3 1/2	3/4	5/8	4 3/8	2 1/8	7 5/8	10 1/2
121-1	6. 00	25	123 1/2 B.1	8. 25	25	33	800	1 3/4-2	2 1/2	3 3/4	1 1/8	3	5 1/2	3 1/2	3/4	5/8	4 3/8	3 3/8	9 1/4	12 1/2
121-2	6. 00	25	123 1/2 B.2	8. 25	25	33	800	2 1/4-3	2 1/2	3 3/4	1 1/8	3	5 1/2	3 1/2	3/4	5/8	4 3/8	3 3/8	9 1/4	12 1/2
150-1	6. 25	25	150 1/2 B.1	8. 50	25	33	1000	1 3/4-2	2 1/2	3 3/4	1 1/8	3	5 1/2	3 1/2	3/4	5/8	4 3/8	3 3/8	9 1/4	12 1/2
150-2	6. 25	25	150 1/2 B.2	8. 50	25	33	1000	2 1/4-3	2 1/2	3 3/4	1 1/8	3	5 1/2	3 1/2	3/4	5/8	4 3/8	3 3/8	9 1/4	12 1/2

\*O is 1/8" greater than N.

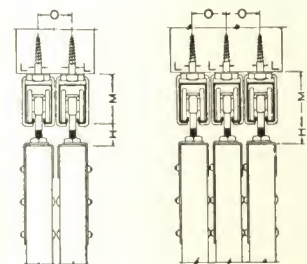
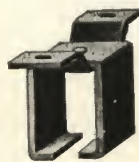
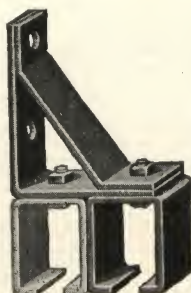


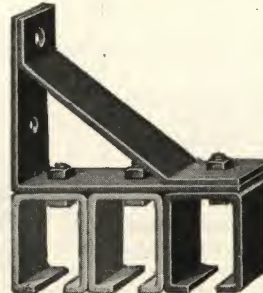
Fig. A-1698—Cross-Section showing overhead bracket attachments without weather-strip.



Nos. 7 x 31,  
7 x 32, 7 x 33,  
7 x 232  
Brackets



Nos. 22, 256-2,  
257-2, 258-2, 259-2,  
Double Brackets



Nos. 33, 256-3, 257-3,  
258-3, 259-3,  
Triple Brackets

Discount

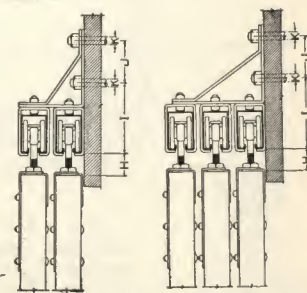


Fig. A-1699—Cross-Section showing side wall bracket attachments without weather-strip.



## R-W Parallel Sliding Garage Door Hardware

Two Doors Sliding from Jamb to Jamb on Two Parallel Tracks

With Weatherstrips

Made in Four Sizes of Track, for Doors Weighing up to 800 Pounds Each

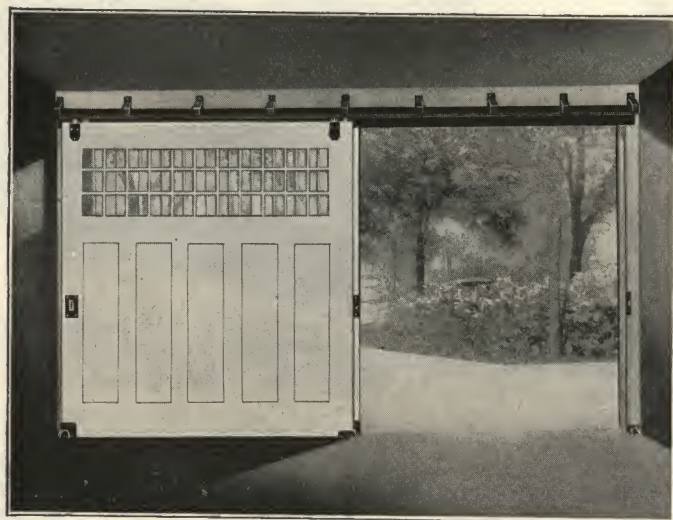
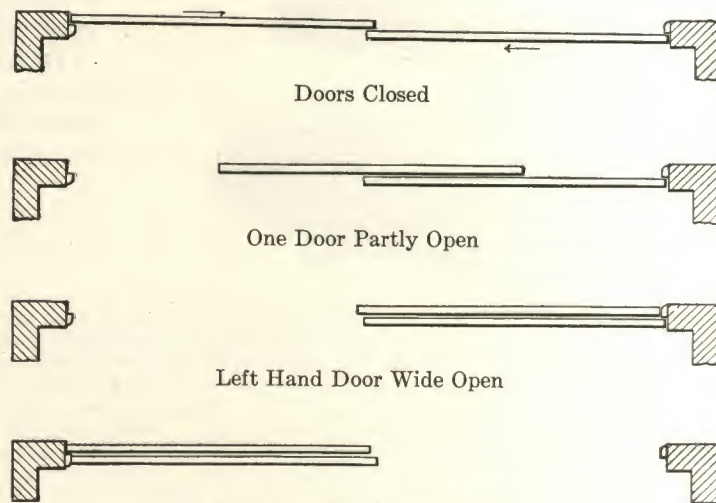


Fig. A-1700—Interior View of Two Parallel Doors, with Weatherstrip



Right Hand Door Wide Open  
Fig. A-1700 1/2—Floor Plans

### List Price of Sets With Weatherstrip. Without Locks or Door Bolts

These sets contain all the hardware necessary to fully equip an opening of the size mentioned, including Hangers, Track, Bracket and Weatherstrip Assemblies, Floor Guides, Handles, etc.	Maximum Weight of Each Door Lbs.	For Openings up to 16' Wide			For Openings Over 16' Wide Add to the 16' Set Prices the Following Amounts for Each Additional Foot or Fraction Thereof.		
		List Price Per Set		Shipping Weight Lbs. Per Set	List Price Per Foot		Shipping Weight Lbs. Per Foot
		With Ball Bearing Hangers	With Roller Bearing Hangers		With Ball Bearing Hangers	With Roller Bearing Hangers	
Set using Two-Track Nos. 256-2 or 356-2 Track, Bracket and Weatherstrip Assembly (No. 31 size track).....	300	\$48.00	\$43.00	280	\$1.95	\$1.95	8 1/4
Set using Two-Track Nos. 257-2 or 357-2 Track, Bracket and Weatherstrip Assembly (No. 32 size track).....	400	59.00	54.00	330	2.50	2.50	9 1/2
Set using Two-Track Nos. 259-2 or 359-2 Track, Bracket and Weatherstrip Assembly (No. 232 size track).....	600	71.00	65.00	440	3.10	3.10	14 3/4
Set using Two-Track Nos. 258-2 or 358-2 Track, Bracket and Weatherstrip Assembly (No. 33 size track).....	800	85.50	77.50	520	3.70	3.70	12 3/4

Note—If track is to be attached to the wall, No. 256-2, 257-2, 258-2 or 259-2 assembly should be specified. If track is to be attached to the ceiling, No. 356-2, 357-2, 358-2 or 359-2 assembly should be specified.

### List Price of Two-Track, Bracket and Weatherstrip Assemblies only are given on Page 142

#### Door Locks and Door Bolts (For Above Sets)

Owing to the various types and combinations of Locks and Door Bolts which may be used in connection with the above sets of hardware, we have not included them in the set prices, leaving it to you to choose the ones best suited for your particular case from the combinations here shown.

For locking both doors from inside and outside use.....  
For locking one door from inside only and one door from inside and outside.....

Wall Attachment	Overhead Attachment
*2 No. 510 Locks	2 No. 525 Locks
1 No. 516 Bolt	1 No. 524 Cane Bolt
*and 1 No. 510 Lock	and 1 No. 525 Lock
or 1 No. 524 Cane Bolt	
*and 1 No. 510 Lock	

\*No. 525 Locks may be substituted if desired, but jamb strips flush with the face of the door must be provided.

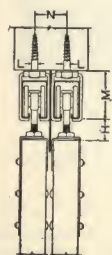


Fig. A-1701—Cross-Section showing overhead bracket attachment with weatherstrip, of two parallel sliding doors.

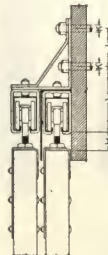


Fig. A-1702—Cross-Section showing side wall bracket attachment with weatherstrip, of two parallel sliding doors.

Note—Dimensions given on page 143

#### Directions for Ordering

State total width of opening, number of doors, and size of track desired. Width and height of each door; thickness of doors, whether for inside or outside installation, and that doors are to run on two tracks. Are they for wall or overhead attachment. Kind of Locks or Door Bolts desired. (These are not included in set prices.)

#### Example Order for Complete Set

With Weatherstrip: 1 Set No. 256-2 Parallel Sliding Garage Door Equipment for opening 16' wide. 2 doors sliding from jamb to jamb on two parallel tracks. (No. 31 size track). For 2 doors 8'2" by 8' by 1 1/4", for inside installation. For wall attachment. Also 2 No. 510 Door Locks.

Discount.....

Fig. A-1701

Fig. A-1702



## R-W Parallel Sliding Garage Door Hardware

Two Doors Sliding from Jamb to Jamb on Two Parallel Tracks

*Without Weatherstrips*

Made in four sizes of Track, for Doors Weighing up to 800 Pounds Each

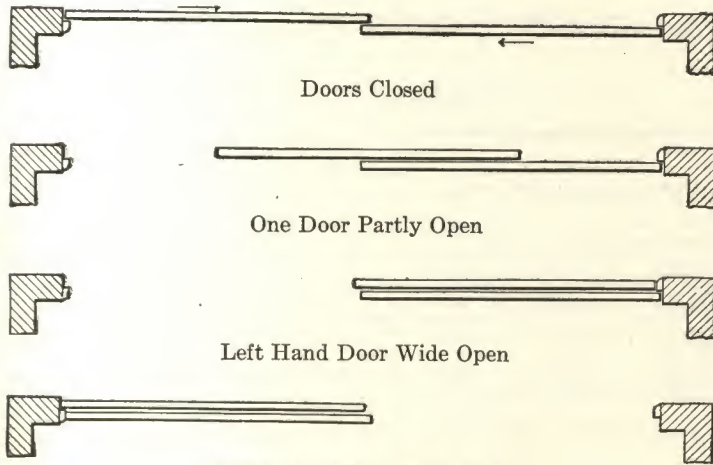


Fig. A-1703—Floor Plans

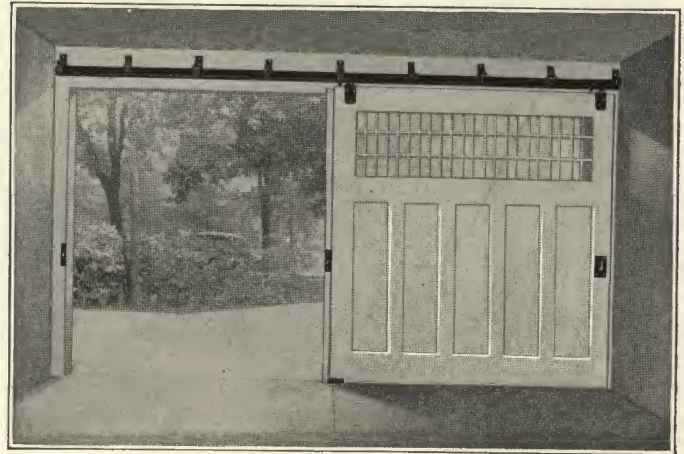


Fig. A-1704—Interior View of Two Parallel Doors, without Weatherstrip

### List Price of Sets *Without Weatherstrip*

### *Without Locks or Door Bolts*

Owing to the various types and combinations of Locks and Door Bolts which may be used in connection with these sets, we have not included them in the set prices, leaving it to you to choose the ones best suited for your particular case. For information concerning Door Locks and Door Bolts see data below entitled, "Door Locks and Door Bolts."

These sets contain all the hardware necessary to fully equip an opening of the size mentioned, including Hangers, Track, Brackets, no Weatherstrip, Floor Guides, Handles, etc.	Maximum Weight of Each Door Lbs.	For Openings up to 16' Wide			For Openings Over 16' Wide Add to the 16' Set Prices the Following Amounts for Each Additional Foot or Fraction Thereof.		
		List Price Per Set		Shipping Weight Lbs. Per Set	List Price Per Foot		Shipping Weight Lbs. Per Foot
		With Ball Bearing Hangers	With Roller Bearing Hangers		With Ball Bearing Hangers	With Roller Bearing Hangers	
Set using Two Runs of No. 31 Track.....	300	\$33.60	\$28.40	260	\$1.05	\$1.05	5
Set using Two Runs of No. 32 Track.....	400	44.40	39.00	300	1.60	1.60	7 1/2
Set using Two Runs of No. 33 Track.....	800	53.00	45.00	380	1.90	1.90	9
Set using Two Runs of No. 232 Track.....	600	65.25	57.00	460	2.30	2.30	12

### Door Locks and Door Bolts (For Above Sets)

Owing to the various types and combinations of Locks and Door Bolts which may be used in connection with the above sets of hardware, we have not included them in the set prices, leaving it to you to choose the ones best suited for your particular case from the combinations here shown.

For locking both doors from inside and outside use.....  
For locking one door from inside only and one door from inside and outside.....

Wall Attachment Overhead Attachment  
\*2 No. 510 Locks 2 No. 525 Locks  
1 No. 516 Bolt 1 No. 524 Cane Bolt  
\*and 1 No. 510 Lock and 1 No. 525 Lock  
or 1 No. 524 Cane Bolt \*and 1 No. 510 Lock

\*No. 525 Locks may be substituted if desired, but jamb strips flush with the face of the door must be provided.

### Directions for Ordering

State total width of opening, number of doors, and size of track desired. Width and height of each door; thickness of doors, whether for inside or outside installation, and that doors are to run on two tracks. Are they for wall or overhead attachment. Kind of Locks or Door Bolts desired. (These are not included in set prices.)

### Example Order for Complete Sets

**Without Weatherstrip:** 1 Set of Parallel Sliding Garage Door Equipment, without weatherstrip for opening 16' wide. For 2 parallel doors sliding from jamb to jamb on No. 31 Track. For 2 doors 8'2" by 8' by 1 3/4", for inside installation. For wall attachment. Also 2 No. 510 Door Locks.

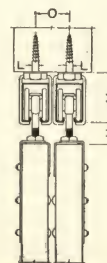


Fig. A-1705—Cross-section showing overhead bracket attachment without weatherstrip, of two parallel sliding doors.

Dimensions Given On Page 143

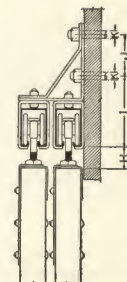


Fig. A-1706—Cross-section showing side wall bracket attachment without weatherstrip, of two parallel sliding doors.

Discount.....



## R-W Parallel Sliding Garage Door Hardware

Two Doors Sliding on Two Parallel Tracks to Wall Space on One Side of Opening  
Two Sets can be used for Four Doors Sliding on Two Parallel Tracks to Wall Space on Both Sides of Opening

Diagrams on Next Page Show Installation Details

### List Price of Sets Without Weatherstrip

### Without Locks or Door Bolts

	Maximum Weight of Each Door Lbs.	For Openings up to 8 Feet Wide			For Openings Over 8' Wide Add to the 8' Set Prices the Following Amounts for Each Additional Foot or Fraction Thereof.		
		List Price Per Set		Shipping Weight Lbs. Per Set	List Price Per Foot		Shipping Weight Lbs. Per Foot
		With Ball Bearing Hangers	With Roller Bearing Hangers		With Ball Bearing Hangers	With Roller Bearing Hangers	
2-Door sets contain all the hardware necessary to fully equip an opening of the size mentioned, including Hangers, Track, Brackets, (no Weatherstrip), Floor Guides, Handles, etc., as enumerated in table below.							
For openings with four doors, two doors sliding to wall space on each side of opening, order two sets of hardware as listed.							
Set using Two Runs of No. 31 Track	300	\$28.00	\$23.00	140	\$ .96	\$ .96	5
Set using Two Runs of No. 32 Track	400	36.50	31.50	185	1.46	1.46	7 1/2
Set using Two Runs of No. 232 Track	600	43.00	37.00	250	1.80	1.80	9
Set using Two Runs of No. 33 Track	800	53.00	45.00	320	2.15	2.15	12

Note—Weatherstrips are not required when doors operate according to this plan. Head jamb is built out by the carpenter to meet the door on the track farthest from the wall. See Fig. A-1713.

### Door Locks and Door Bolts (For Above Sets)

Owing to the various types and combinations of Locks and Door Bolts which may be used in connection with the above sets of hardware, we have not included them in the set prices, leaving it to you to choose the ones best suited for your particular case from the combinations here shown.

For locking doors from both inside and outside use: 1 No. 525 Door Lock (page 469) or 1 No. 510 Door Lock (page 469) and 1 No. 616 Door Bolt (page 465) or 1 No. 524 Cane Bolt (page 473) attached to edge of back door.

For locking doors from inside only use: 1 No. 616 Door Bolt (page 465) and 1 No. 524 Cane Bolt (page 473) or 2 No. 524 Cane Bolts for inside installations; 2 No. 616 Bolts or 1 No. 616 and 1 No. 524 Bolt for outside installations.

For 4-Door Openings, two doors opening each way, double the quantity of all locks and bolts except Nos. 510 and 525. Only one No. 510 or 525 lock is required for each opening.

Jamb strip must be built out flush with the door when No. 525 Lock is used.

### Directions for Ordering

State total width of opening, number of doors, and size of track desired. Width and height of each door; thickness of doors, whether for inside or outside installation, and that doors are to run on two tracks. Are they for wall or overhead attachment. Kind of Locks or Door Bolts desired. (These are not included in set prices.)

### Example Order for Complete Sets

Without Weatherstrip: 1 Set Parallel Sliding Garage Door Hardware. 2 doors sliding on two parallel tracks to wall space on one side of opening on No. 31 track. For doors 4'2" by 8' by 1 3/4", for inside installation. For wall attachment. Also 1 No. 525 Door Lock, and 1 No. 524-1 Cane Bolt.

### List of Material for Above Sets of Hardware

DESCRIPTION	For No. 31 Track For Doors Weighing up to 400 lbs. each		For No. 32 Track For Doors Weighing up to 500 lbs. each		For No. 232 Track For Doors Weighing up to 600 lbs. each		For No. 33 Track For Doors Weighing up to 800 lbs. each	
	Installation		Installation		Installation		Installation	
	Inside	Outside	Inside	Outside	Inside	Outside	Inside	Outside
*2 Pair Hangers, Ball Bearing	27 1/2B	27 1/2B	28 1/2B	28 1/2B	29 1/2B	29 1/2B	123 1/2B	123 1/2B
*2 Pair Hangers, Roller Bearing	25	25	28V	28V	29V	29V	121	121
Trolley Track. Amount required equals 2 1/2 times width of opening.	31	31	32	32	232	232	33	33
*Brackets, Single Center Wall Attachment (No. 22 style less bracket proper nearest the wall)	22x31S	22x31S	22x32S	22x32S	22x232S	22x232S	22x33S	22x33S
**1 Bracket, Single End Wall Attachment (No. 23 style less bracket proper nearest the wall)	23x31S	23x31S	23x32S	23x32S	23x232S	23x232S	23x33S	23x33S
† Bracket, Overhead Center Stop (for four door openings only)	10x31	10x31	10x32	10x32	10x232	10x232	10x33	10x33
†1 Bracket Wall Center Stop (No. 13 style less bracket proper nearest the wall for 4-Door openings only)	13x31S	13x31S	13x32S	13x32S	13x232S	13x232S	13x33S	13x33S
**Brackets, Double Center Wall Attachment	22x31	22x31	22x32	22x32	22x232	22x232	22x33	22x33
**1 Bracket, Double End Wall Attachment	23x31	23x31	23x32	23x32	23x232	23x232	23x33	23x33
**Brackets, Parallel Ear Overhead Center	7x31	7x31	7x32	7x32	7x232	7x232	7x33	7x33
**4 Brackets, Parallel Ear Overhead, Right or Left End	8x31	8x31	8x32	8x32	8x232	8x232	8x33	8x33
1 Floor End Door Guide	272	272	272	272	272	272	272	272
2 Bumper Shoes	435-72	435-72	435-72	435-72	435-72	435-72	435-72	435-72
†1 Flush Pull	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
†1 Bow Handle	81-1	81-1	81-1	81-1	81-2	81-2	81-2	81-2
1 Parallel Door Floor Guide	172-1	172-1	172-1	172-1	172-1	172-1	172-1	172-1

Notes—\*Other Ball Bearing Hangers or Roller Bearing Hangers may be used if desired. See page 143. \*\*Center Brackets should be spaced on 2' centers. Wall Brackets not used on overhead installations, and vice versa. No. 7 Brackets are Single Brackets and twice the number are required as of No. 22 Brackets. †On doors over 2" thick use the No. 70-2 size. ††Not required if No. 510 or No. 525 Lock is used.

Discount.....



## R-W Parallel Sliding Garage Door Hardware

*Without Weatherstrip*

(Continued)

Two Doors Sliding on Two  
Parallel Tracks to Wall Space  
On One Side of Opening

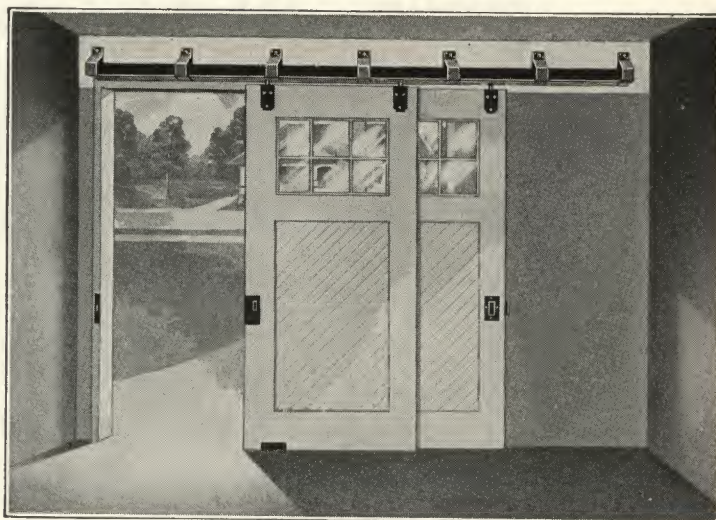


Fig. A-1707—Interior View of One Car Garage. Doors without Weatherstrip

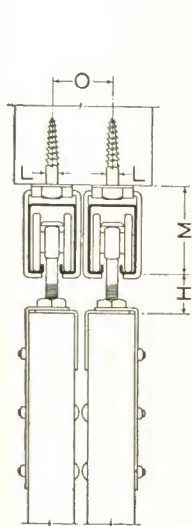


Fig. A-1708—Cross-section showing overhead bracket attachment without weatherstrip, of two parallel sliding doors.

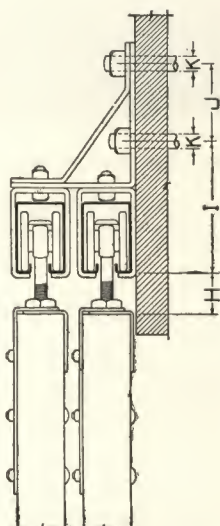
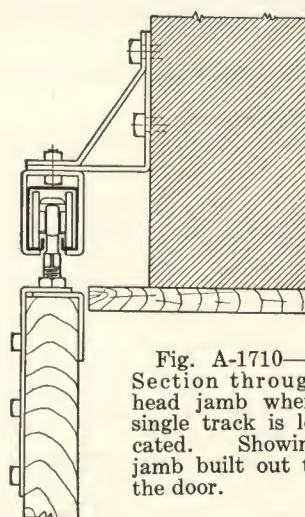
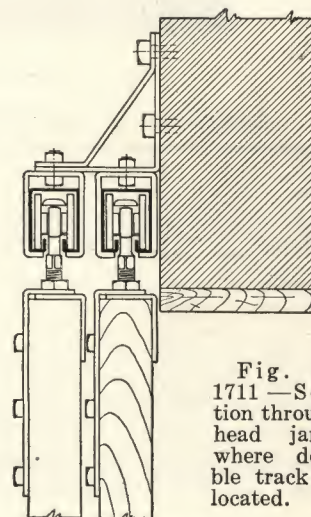


Fig. A-1709—Cross-section showing wall bracket attachment without weatherstrip, of two parallel sliding doors.



SECTION A-A



SECTION B-B

Fig. A-1710—Section through head jamb where single track is located. Showing jamb built out to the door.

Fig. A-1711—Section through head jamb where double track is located.

Note—Dimensions of the above Cross-Sections given on page 143



Fig. A-1712—Track Plans showing two parallel tracks without Weatherstrip

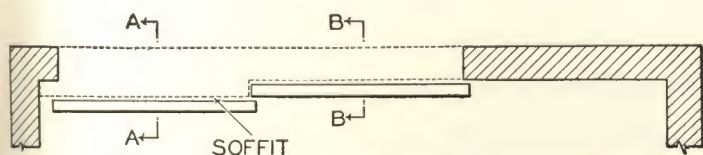
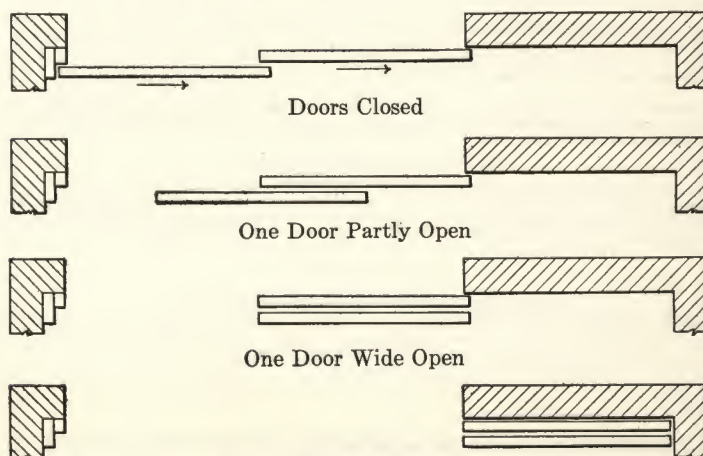


Fig. A-1713—Plan showing how head jamb is built out to meet the doors mounted on the track farthest from the wall



Both Doors Wide Open  
Fig. A-1714—Floor Plans



## R-W Parallel Sliding Garage Door Hardware

Three Doors Sliding from Jamb to Jamb on Two Parallel Tracks

With Weatherstrips



Fig. A-1715—Interior View. Showing Center Door Partly Open. Doors with Weatherstrip

### List Price of Sets With Weatherstrip

### Without Locks or Door Bolts

These sets contain all the hardware necessary to fully equip an opening of the size mentioned, including Hangers, Track, Brackets and Weatherstrip Assemblies; Floor Guides, Handles, etc.	Maximum Weight of Each Door Lbs.	For Openings up to 24' Wide			For Openings Over 24' Wide Add to the 24' Set Prices the Following Amounts for Each Additional Foot or Fraction Thereof.		
		List Price Per Set		Shipping Weight Lbs. Per Set	List Price Per Foot		Shipping Weight Lbs. Per Foot
		With Ball Bearing Hangers	With Roller Bearing Hangers		With Ball Bearing Hangers	With Roller Bearing Hangers	
*Set using Two-Track Nos. 256-2 or 356-2 Track, Bracket and Weatherstrip Assembly (No. 31 size track).....	300	\$ 73.00	\$ 65.00	275	\$1.95	\$1.95	8¼
*Set using Two-Track Nos. 257-2 or 357-2 Track, Bracket and Weatherstrip Assembly (No. 32 track).....	400	90.00	82.00	300	2.50	2.50	9½
*Set using Two-Track Nos. 259-2 or 359-2 Track, Bracket and Weatherstrip Assembly (No. 232 size track).....	600	108.00	98.50	390	3.10	3.10	12¾
*Set using Two-Track Nos. 258-2 or 358-2 Track, Bracket and Weatherstrip Assembly (No. 33 size track).....	800	130.00	118.00	460	3.70	3.70	14¾

Note—\*Assembly Nos. 256-2, 257-2, 258-2, 259-2 are for attachment to wall, Nos. 356-2, 357-2, 358-2, 359-2 for attachment to ceiling.

### Door Locks and Door Bolts (For Above Sets)

Owing to the various types and combinations of Locks and Door Bolts which may be used in connection with the above sets of hardware, we have not included them in the set prices, leaving it to you to choose the ones best suited for your particular case from the combinations here shown.

	Wall Attachment	Overhead Attachment
For locking two end doors from inside and outside and center door from inside only.....	2*No. 510 Locks and 1 No. 524 Cane Bolt.	2*No. 510 Locks and 1 No. 524 Cane Bolt.
For locking one end door from inside and outside and two doors from inside only.....	1*No. 510 Lock and 1 No. 524 Cane Bolt, and 1 No. 516 Bolt.	2 No. 510 Locks and 1 No. 524 Cane Bolt, and 1 No. 516 Bolt.
†For locking all doors from inside only.....	1*No. 510 Lock and 2 No. 516 Bolts.	2 No. 516 Bolts.

Note—\*No. 525 Locks may be substituted if desired, but jamb strips flush with the face of the door must be provided at both ends of the opening. †The lock may be omitted and only the bolts used, if jamb strips flush with the face of the door are provided at both ends of the opening.

### Directions for Ordering

State total width of opening, number of doors, and size of track desired. Width and height of each door; thickness of doors, whether for inside or outside installation, and that doors are to run on two tracks. Are they for wall or overhead attachment. Kind of Locks or Door Bolts desired. (These are not included in set prices.)

### Example Order for Complete Sets

With Weatherstrip: 1 Set No. 256-2 Parallel Sliding Garage Door Equipment for opening 24' wide. 3 doors sliding from jamb to jamb on two parallel tracks (No. 31 track). For 3 doors 8'2" by 8' by 1½", for inside installation. For wall attachment. Also 2 No. 510 Locks and 1 No. 524-1 Cane Bolt.

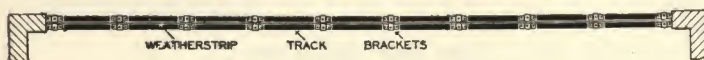
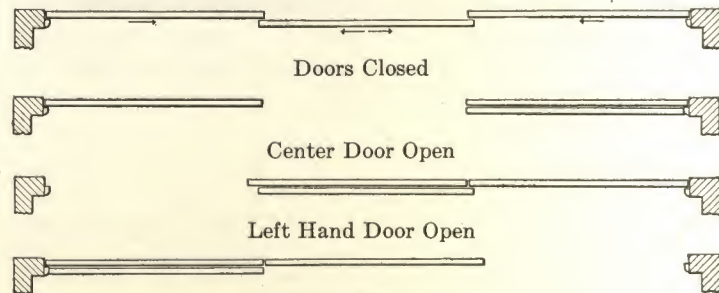


Fig. A-1716 Plan of Tracks with Weatherstrip



Right Hand Door Open  
Fig. A-1717—Floor Plans

Discount.....



## R-W Parallel Sliding Garage Door Hardware

Three Doors Sliding from Jamb to Jamb on Two Parallel Tracks

Without Weatherstrips



Fig. A-1718—Interior View. Showing Center Door Partly Open. Doors without Weatherstrip

### List Price of Sets Without Weatherstrip

### Without Locks or Door Bolts

These sets contain all the hardware necessary to fully equip an opening of the size mentioned, including Hangers, Track, Brackets, (no Weatherstrip), Floor Guides, Handles, etc.	Maximum Weight of Each Door Lbs.	For Openings up to 24' Wide			For Openings Over 24' Wide Add to the 24' Set Prices the Following Amounts for Each Additional Foot or Fraction Thereof.		
		List Price Per Set		Shipping Weight Lbs. Per Set	List Price Per Foot		Shipping Weight Lbs. Per Foot
		With Ball Bearing Hangers	With Roller Bearing Hangers		With Ball Bearing Hangers	With Roller Bearing Hangers	
Set using Two Runs of No. 31 Track.....	300	\$ 52.00	\$ 44.00	270	\$1.05	\$1.05	5
Set using Two Runs of No. 32 Track.....	400	68.00	60.00	350	1.60	1.60	7½
Set using Two Runs of No. 232 Track.....	600	81.00	71.00	440	1.90	1.90	9
Set using Two Runs of No. 33 Track.....	800	116.00	103.00	520	2.30	2.30	12

### Door Locks and Door Bolts (For Above Sets)

Owing to the various types and combinations of Locks and Door Bolts which may be used in connection with the above sets of hardware, we have not included them in the set prices, leaving it to you to choose the ones best suited for your particular case from the combinations of locks and door bolts given on the opposite page.

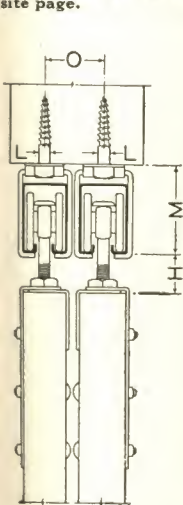


Fig. A-1719—Cross-section showing overhead bracket attachment without weatherstrip, of two parallel sliding doors. See page 143 for dimensions.

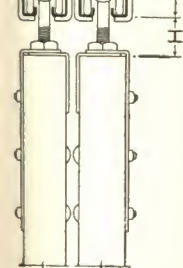


Fig. A-1720—Cross-section showing wall bracket attachment, with out weatherstrip, of two parallel sliding doors. See page 143 for dimensions.

**Note**—Dimensions of these cross-sections given on page 143.

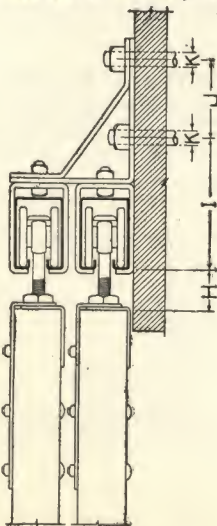


Fig. A-1720

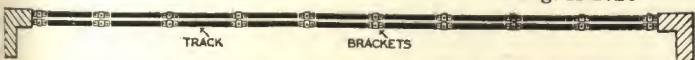


Fig. A-1721—Plan of Tracks without Weatherstrip

### Directions for Ordering

State total width of opening, number of doors, and size of track desired. Width and height of each door; thickness of doors, whether for inside or outside installation, and that doors are to run on two tracks. Are they for wall or overhead attachment. Kind of Locks or Door Bolts desired. (These are not included in set prices.)

### Example Order for Complete Sets

**Without Weatherstrip:** 1 Set of Parallel Sliding Garage Door Equipment, without weatherstrip for opening 24' wide. For 3 parallel doors sliding from jamb to jamb on No. 31 Track. For 3 doors 8'2" by 8' by 1½" for inside installation. For wall attachment. Also 2 No. 510 Locks and 1 No. 524-1 Cane Bolt.

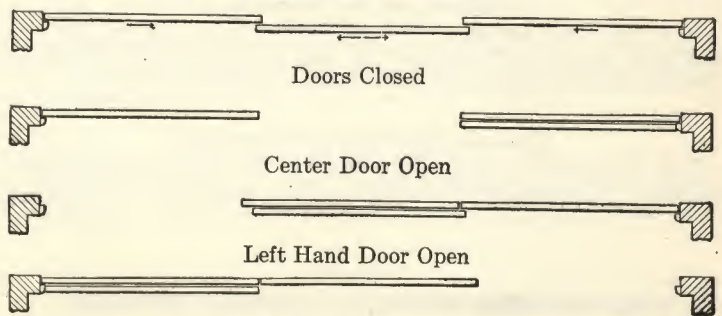


Fig. A-1722—Floor Plans

Discount.....



## R-W Parallel Sliding Garage Door Hardware

Three Doors Sliding from Jamb to Jamb on Three Parallel Tracks

With Weatherstrip

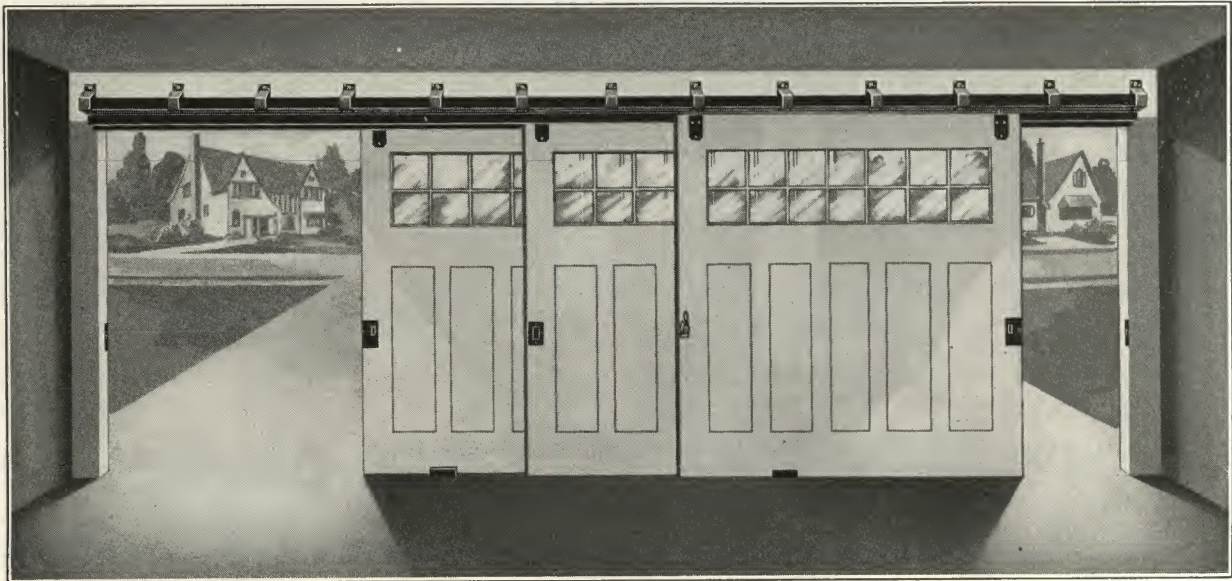


Fig. A-1723—Interior View. Showing how the Two End Doors may be Open at the Same Time. Doors with Weatherstrip

### List Price of Sets With Weatherstrip

### Without Locks or Door Bolts

These sets contain all the hardware necessary to fully equip an opening of the size mentioned, including Hangers, Track, Bracket and Weatherstrip Assemblies; Floor Guides, Handles, etc.

	Maximum Weight of Each Door Lbs.	For Openings up to 24' Wide			For Openings Over 24' Wide Add to the 24' Set Prices the Following Amounts for Each Additional Foot or Fraction Thereof.		
		List Price Per Set		Shipping Weight Lbs. Per Set	List Price Per Foot		Shipping Weight Lbs. Per Foot
		With Ball Bearing Hangers	With Roller Bearing Hangers		With Ball Bearing Hangers	With Roller Bearing Hangers	
Set using Three-Track Nos. 256-3 or 356-3 Track, Bracket and Weatherstrip Assembly (No. 31 size track) . . . . .	300	\$100.00	\$ 92.00	420	\$3.05	\$3.05	14½
Set using Three-Track Nos. 257-3 or 357-3 Track, Bracket and Weatherstrip Assembly (No. 32 size track) . . . . .	400	125.00	117.00	450	4.35	4.35	15½
Set using Three-Track Nos. 259-3 or 359-3 Track, Bracket and Weatherstrip Assembly (No. 232 size track) . . . . .	600	165.00	151.00	580	5.45	5.45	20¾
Set using Three-Track Nos. 258-3 or 358-3 Track, Bracket and Weatherstrip Assembly (No. 33 size track) . . . . .	800	196.00	184.00	680	6.40	6.40	23½

**Note**—If track is to be attached to the wall Nos. 256-3, 257-3, 258-3 or 259-3 assembly should be specified. If track is to be attached to the ceiling Nos. 356-3, 357-3, 358-3 or 359-3 assembly should be specified.

### Door Locks and Door Bolts (For Above Sets)

Owing to the various types and combinations of Locks and Door Bolts which may be used in connection with the above sets of hardware, we have not included them in the set prices, leaving it to you to choose the ones best suited for your particular case from the combinations here shown.

For locking doors mounted on tracks with wall brackets, 2 \*No. 510 Locks and 1 No. 516 Door Bolt; or 1 \*No. 510 Lock, 1 No. 516 Door Bolt and 1 No. 524 Cane Bolt. For locking doors mounted on tracks with overhead brackets, 2 No. 525 Locks and 1 No. 516 Door Bolt, or 1 No. 525 Lock, 1 No. 516 Door Bolt and 1 No. 524 Cane Bolt.

All of the above locks are operated from inside and outside.

**Note**—\*No. 525 Locks may be substituted, but jamb strips must be built out flush with face of door at both ends of doorway.

### Directions for Ordering

State total width of opening, number of doors, and size of track desired. Width and height of each door; thickness of doors, whether for inside or outside installation, and that doors, are to run on three tracks. Are they for wall or overhead attachment. Kind of Locks or Door Bolts desired. (These are not included in set prices.)

### Example Order for Complete Sets

**With Weatherstrip:** 1 Set No. 256-3 Parallel Sliding Garage Door Equipment for opening 24' wide. 3 Doors sliding from jamb to jamb on three parallel tracks (No. 31 size track). For 3 doors 8'2" by 8' by 1¾", for inside installation. For Wall attachment. Also 2 No. 510 Door Locks and 1 No. 516 Door Bolt.



Fig. A-1724—Plan of Tracks with Weatherstrip

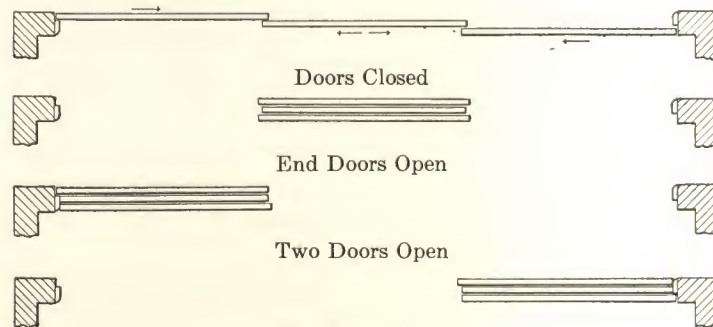


Fig. A-1725—Floor Plans

Discount.....



## R-W Parallel Sliding Garage Door Hardware

Three Doors Sliding from Jamb to Jamb on Three Parallel Tracks

Without Weatherstrip

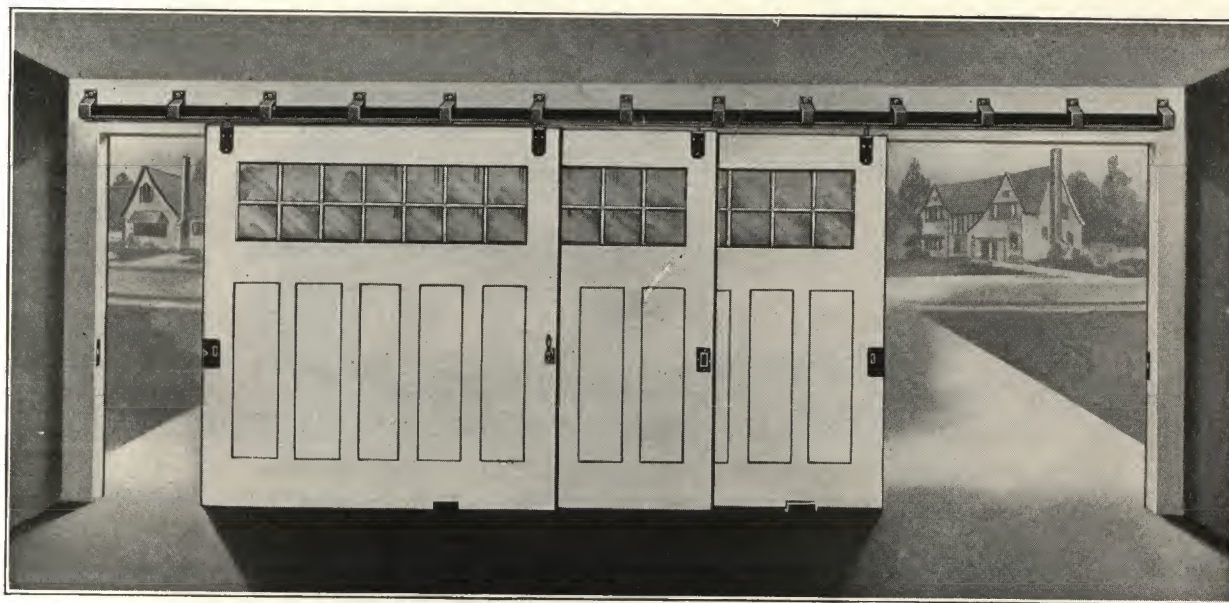


Fig. A-1726—Interior View. Showing how the Two End Doors may be Open at the Same Time. Doors without Weatherstrips

### List Price of Sets Without Weatherstrip

### Without Locks or Door Bolts

These sets contain all the hardware necessary to fully equip an opening of the size mentioned, including Hangers, Track, Brackets, (no Weatherstrip), Floor Guides, Handles, etc.	Maximum Weight of Each Door Lbs.	For Openings up to 24' wide			For Openings Over 24' Wide Add to the 24' Set Prices the Following Amounts for Each Additional Foot or Fraction Thereof.		
		List Price Per Set		Shipping Weight Lbs. Per Set	List Price Per Foot		Shipping Weight Lbs. Per Foot
		With Ball Bearing Hangers	With Roller Bearing Hangers		With Ball Bearing Hangers	With Roller Bearing Hangers	
Set using Three Runs of No. 31 Track.....	300	\$ 67.00	\$ 59.00	510	\$1.60	\$1.60	7 1/4
Set using Three Runs of No. 32 Track.....	400	87.00	78.00	690	2.30	2.30	10 3/4
Set using Three Runs of No. 232 Track.....	600	104.50	94.00	855	3.00	3.00	12 3/4
Set using Three Runs of No. 33 Track.....	800	128.00	116.00	995	3.60	3.60	18 3/4

### Door Locks and Door Bolts (For Above Sets)

Owing to the various types and combinations of Locks and Door Bolts which may be used in connection with the above sets of hardware, we have not included them in the set prices, leaving it to you to choose the ones best suited for your particular case from the combinations here shown.

For locking doors mounted on tracks with wall brackets, 2 \*No. 510 Locks and 1 No. 516 Door Bolt; or 1 \*No. 510 Lock, 1 No. 516 Door Bolt and 1 No. 524 Cane Bolt.

For locking doors mounted on tracks with overhead brackets, 2 No. 525 Locks and 1 No. 516 Door Bolt, or 1 No. 525 Lock, 1 No. 516 Door Bolt and 1 No. 524 Cane Bolt.

All of the above locks are operated from inside and outside.

Note—\*No. 525 Locks may be substituted, but jamb strips must be built out flush with face of door at both ends of doorway.

### Directions for Ordering

State total width of opening, number of doors, and size of track desired. Width and height of each door; thickness of doors, whether for inside or outside installation, and that doors are to run on three tracks. Are they for wall or overhead attachment. Kind of Locks or Door Bolts desired. (These are not included in set prices.)

### Example Order for Complete Sets

Without Weatherstrip: 1 Set of Parallel Sliding Garage Door Equipment, without weatherstrip for opening 24' wide. For 3 parallel doors sliding from jamb to jamb on three runs of No. 31 Track. For 3 doors 8'2" by 8' by 1 3/4", for inside installation. For wall attachment. Also 2 No. 510 Door Locks and 1 No. 516 Door Bolt.

### Discount



Fig. A-1729 Plan of Tracks without Weatherstrip

Fig. A-1727—Cross-section showing overhead bracket attachment without weatherstrip, of three parallel sliding doors.

Fig. A-1728—Cross-section showing side wall bracket attachment without weatherstrip, of three parallel sliding doors.

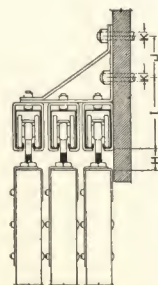


Fig. A-1728

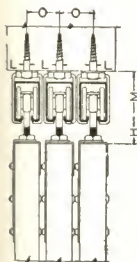


Fig. A-1727

Note—Dimensions of these cross-sections given on page 143



## Sets for Single Straight Sliding Garage Doors

for Inside or Outside Installation

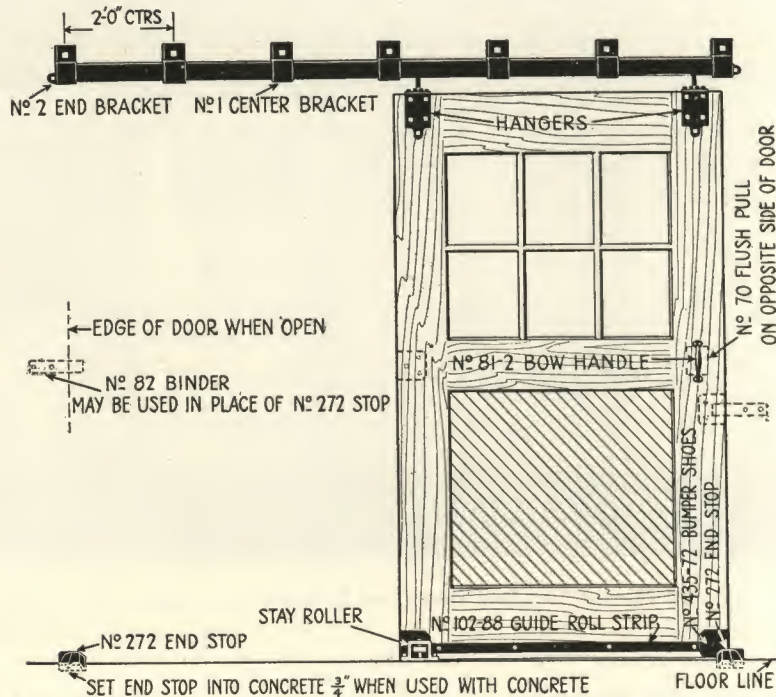


Fig. A-1730

### List Prices for Complete Sets of Hardware for Single Straight Sliding Garage Doors Including all Hardware Shown in Illustration

Catalog Number	Hanger Number	Track Number	For Doors Weighing Pounds	Thickness of Doors Inches	Dist. Bottom of Track to Ctr of Brk't. Bolt Hole	Diameter of Bracket Bolt Inches	Distance Top of Door to Bottom of Track		Center of Bracket Bolt Hole to Top of Bracket	List Price Per Set for 4' Opening	For Each Additional Foot In Width Add:
	Ball-Bearing						Minimum	Maximum			
1020 1/2	20 1/2B	31	300	1 3/4-2 1/2	3 3/4"	1/2"	1 3/8"	2 3/8"	3/8"	\$10.00	\$ .75
1027 1/2-1	27 1/2B-1	31	300	1 3/4-2	3 3/4"	1/2"	1 3/8"	2 3/8"	3/8"	11.35	.75
1027 1/2-2	27 1/2B-2	31	300	2 1/4-2 3/4	3 3/4"	1/2"	1 3/8"	2 3/8"	3/8"	11.35	.75
1028 1/2-1	28 1/2B-1	32	400	1 3/4-2	4 1/4"	1/2"	1 3/8"	2 3/8"	7/8"	14.30	1.15
1028 1/2-2	28 1/2B-2	32	400	2 1/4-2 3/4	4 1/4"	1/2"	1 3/8"	2 3/8"	7/8"	14.30	1.15
1029 1/2-1	29 1/2B-1	232	600	1 3/4-2	4 5/8"	5/8"	1 1/8"	2 1/2"	7/8"	17.35	1.45
1029 1/2-2	29 1/2B-2	232	600	2 1/4-2 3/4	4 5/8"	5/8"	1 1/8"	2 1/2"	7/8"	17.35	1.45
1123 1/2-1	123 1/2B-1	33	800	1 3/4-2	5 "	3/4"	1 1/4"	2 3/8"	3/4"	21.60	1.85
1123 1/2-2	123 1/2B-2	33	800	2 1/4-3	5 "	3/4"	1 1/4"	2 3/8"	3/4"	21.60	1.85
1150 1/2-1	150 1/2B-1	33	800	1 3/4-2	5 "	3/4"	1 1/4"	2 3/8"	3/4"	21.60	1.85
1150 1/2-2	150 1/2B-2	33	800	2 1/4-3 1/2	5 "	3/4"	1 1/4"	2 3/8"	3/4"	21.60	1.85
	Roller-Bearing										
1020-2	20-2	31	300	1 3/4-2 1/2	3 3/4"	1/2"	1 3/8"	2 3/8"	3/8"	9.30	.75
1025-1	25-1	31	300	1 3/4-2	3 3/4"	1/2"	1 3/8"	2 3/8"	3/8"	9.30	.75
1025-2	25-2	31	300	2 1/4-2 3/4	3 3/4"	1/2"	1 3/8"	2 3/8"	3/8"	9.30	.75
1028-1	28V-1	32	400	1 3/4-2	4 1/4"	1/2"	1 3/8"	2 3/8"	7/8"	12.25	1.15
1028-2	28V-2	32	400	2 1/4-2 3/4	4 1/4"	1/2"	1 3/8"	2 3/8"	7/8"	12.25	1.15
1029-1	29V-1	232	600	1 3/4-2	4 5/8"	5/8"	1 1/8"	2 1/2"	7/8"	15.55	1.45
1029-2	29V-2	232	600	2 1/4-2 3/4	4 5/8"	5/8"	1 1/8"	2 1/2"	7/8"	15.55	1.45
1121-1	121-1	33	800	1 3/4-2	5 "	3/4"	1 1/4"	2 3/8"	3/4"	19.35	1.85
1121-2	121-2	33	800	2 1/4-3	5 "	3/4"	1 1/4"	2 3/8"	3/4"	19.35	1.85
1150-1	150-1	33	800	1 3/4-2	5 "	3/4"	1 1/4"	2 3/8"	3/4"	19.35	1.85
1150-2	150-2	33	800	2 1/4-3 1/2	5 "	3/4"	1 1/4"	2 3/8"	3/4"	19.35	1.85

Note—If the No. 82 Binders are wanted instead of the No. 272 End Stops, state so on the order.

Discount.....



## Sets for Double Straight Sliding Garage Doors

for Inside or Outside Installation

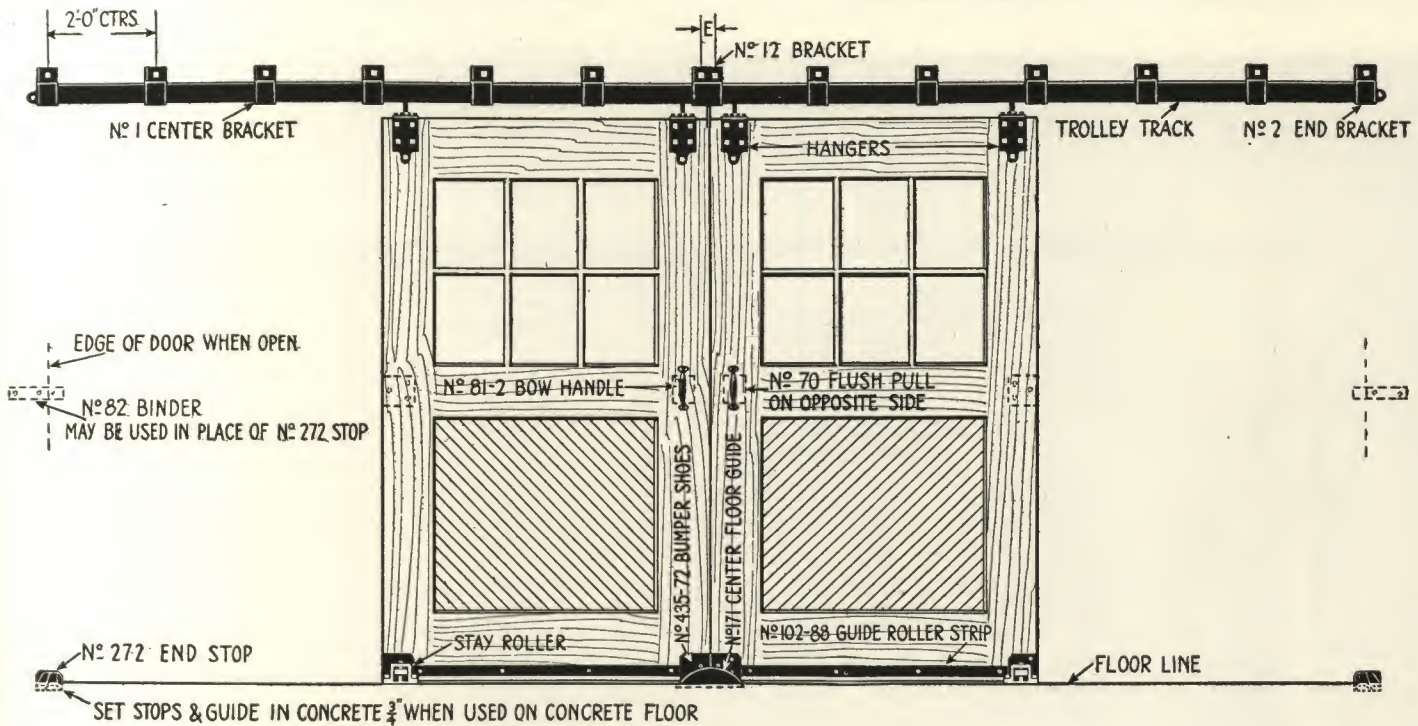


Fig. A-1731

### List Prices for Complete Sets of Hardware for Double Straight Sliding Garage Doors Including all Hardware Shown in Illustration

Catalog Number	Hanger Number Ball-Bearing	Track Number	For Doors Weighing, Each Pounds	Thick-ness of Doors Inches	Distance Bottom of Track to Center of Bracket Bolt Hole		Diameter of Bracket Bolt Inches	Distance Top of Door to Bottom of Track		Center of Bracket Bolt Hole to Top of Bracket, Inches	Bolt Hole Centers in No. 12 Brackets, Inches	Size of Hole in No. 12 Bracket, Inches	List Price Per Set for 6' Opening	For Each Additional Foot in Width Add:
					For Nos. 1 and 2 Brackets	For No. 12 Brackets		Minimum	Maximum					
2020 1/2	20 1/2	31	300	1 3/4-2 1/2	3 3/4"	3 3/4"	1/2	1 3/8"	2 5/8"	3/4	2 3/4	3/8	\$18.85	\$ .75
2027 1/2-1	27 1/2B-1	31	300	1 3/4-2	3 3/4"	3 3/4"	1/2	1 3/8"	2 5/8"	3/4	2 3/4	3/8	21.50	.75
2027 1/2-2	27 1/2B-2	31	300	2 1/4-2 3/4	3 3/4"	3 3/8"	1/2	1 3/8"	2 5/8"	3/4	2 3/4	3/8	21.50	.75
2028 1/2-1	28 1/2B-1	32	400	1 3/4-2	4 1/4"	4 1/8"	1/2	1 3/8"	2 5/8"	7/8	2 3/4	3/8	26.40	1.15
2028 1/2-2	28 1/2B-2	32	400	2 1/4-2 3/4	4 1/4"	4 1/8"	1/2	1 3/8"	2 5/8"	7/8	2 3/4	3/8	26.40	1.15
2029 1/2-1	29 1/2B-1	232	600	1 3/4-2	4 1/2"	4 5/8"	5/8	1 1/8"	2 1/2"	7/8	2 3/4	3/8	31.90	1.45
2029 1/2-2	29 1/2B-2	232	600	2 1/4-2 3/4	4 1/2"	4 5/8"	5/8	1 1/8"	2 1/2"	7/8	2 3/4	3/8	31.90	1.45
2123 1/2-1	123 1/2B-1	33	800	1 3/4-2	5 "	5 1/8"	3/4	1 1/4"	2 3/8"	3/4	2 3/4	3/8	39.50	1.85
2123 1/2-2	123 1/2B-2	33	800	2 1/4-3	5 "	5 1/8"	3/4	1 1/4"	2 3/8"	3/4	2 3/4	3/8	39.50	1.85
2150 1/2-1	150 1/2B-1	33	800	1 3/4-2	5 "	5 1/8"	3/4	1 1/4"	2 3/8"	3/4	2 3/4	3/8	39.50	1.85
2150 1/2-2	150 1/2B-2	33	800	2 1/4-3 1/2	5 "	5 1/8"	3/4	1 1/4"	2 3/8"	3/4	2 3/4	3/8	39.50	1.85
	Roller-Bearing													
2020-2	20-2	31	300	1 3/4-2 1/2	3 3/4"	3 3/4"	1/2	1 3/8"	2 5/8"	3/4	2 3/4	3/8	17.40	.75
2025-1	25-1	31	300	1 3/4-2	3 3/4"	3 3/4"	1/2	1 3/8"	2 5/8"	3/4	2 3/4	3/8	17.40	.75
2025-2	25-2	31	300	2 1/4-2 3/4	3 3/4"	3 3/8"	1/2	1 3/8"	2 5/8"	3/4	2 3/4	3/8	17.40	.75
2028-1	28V-1	32	400	1 3/4-2	4 1/4"	4 1/8"	1/2	1 3/8"	2 5/8"	7/8	2 3/4	3/8	22.10	1.15
2028-2	28V-2	32	400	2 1/4-2 3/4	4 1/4"	4 1/8"	1/2	1 3/8"	2 5/8"	7/8	2 3/4	3/8	22.10	1.15
2029-1	29V-1	232	600	1 3/4-2	4 1/2"	4 5/8"	5/8	1 1/8"	2 1/2"	7/8	2 3/4	3/8	28.25	1.45
2029-2	29V-2	232	600	2 1/4-2 3/4	4 1/2"	4 5/8"	5/8	1 1/8"	2 1/2"	7/8	2 3/4	3/8	28.25	1.45
2121-1	121-1	33	800	1 3/4-2	5 "	5 1/8"	3/4	1 1/4"	2 3/8"	3/4	2 3/4	3/8	35.00	1.85
2121-2	121-2	33	800	2 1/4-3	5 "	5 1/8"	3/4	1 1/4"	2 3/8"	3/4	2 3/4	3/8	35.00	1.85
2150-1	150-1	33	800	1 3/4-2	5 "	5 1/8"	3/4	1 1/4"	2 3/8"	3/4	2 3/4	3/8	35.00	1.85
2150-2	150-2	33	800	2 1/4-3 1/2	5 "	5 1/8"	3/4	1 1/4"	2 3/8"	3/4	2 3/4	3/8	35.00	1.85

Note—If the No. 82 Binders are wanted instead of the No. 272 End Stops state so on the order.

Discount.....



## "Ideal-Sliding" Garage Door Hardware

For Single or Parallel Doors

R-W No. 456 With Weatherstrip

R-W No. 457 Without Weatherstrip

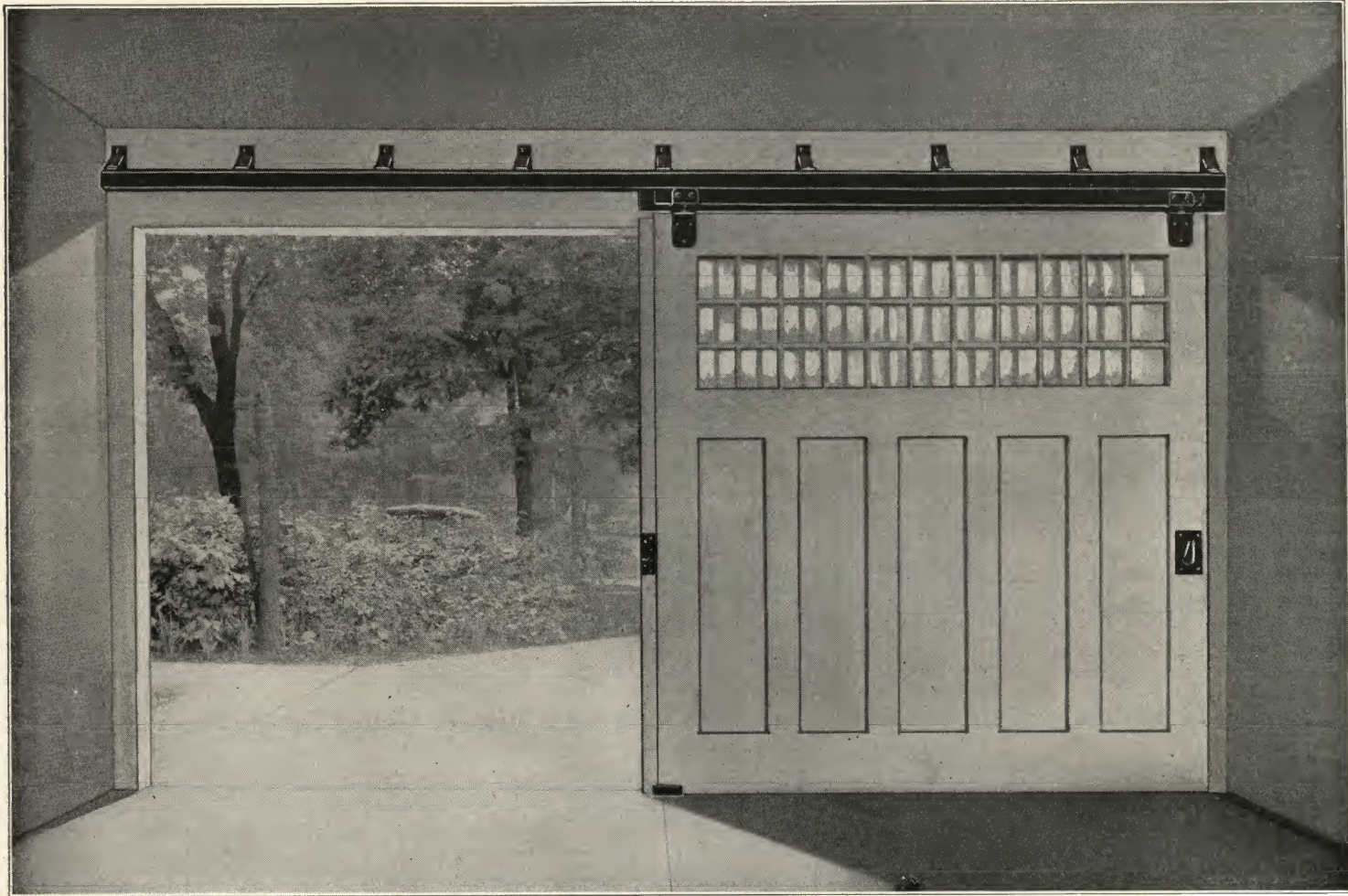


Fig. A-1732—Illustration Shows a Two Car Garage. Doorway is equipped with "Ideal-Sliding" Parallel Doors

"Ideal-Sliding" Garage Door Hardware is a particularly high class equipment in which the "Ideal" Ball-Bearing track and hanger assembly supports sliding doors, as shown on this page, the other hardware being the same as used in the regular R-W Parallel Door sets shown on pages 141 to 151.

The "Ideal" track and hanger assembly embodies, because of its scientific construction, a maximum of perfect principles. The door hangs from a wide rider-bar rolling over steel balls, which in turn roll

over a carefully milled track groove. Friction is practically eliminated and at the same time the door travels at twice the speed of the bearings.

A ball retainer keeps the steel balls always properly spaced.

This "Ideal" ball-bearing design provides a hanger which operates with exceptional smoothness and ease, and the combination of "Ideal" track with the sliding door arrangement produces in "Ideal-Sliding" hardware, an equipment that is almost perfection itself.

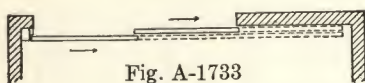


Fig. A-1733

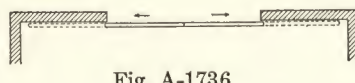


Fig. A-1736

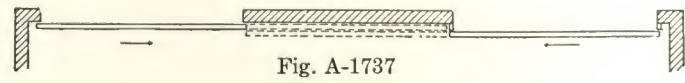


Fig. A-1737

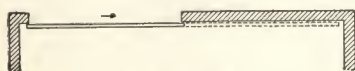


Fig. A-1734

**Floor Plans**  
Showing possible door arrangements

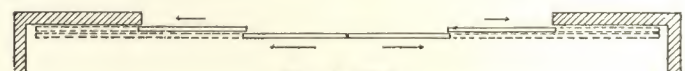


Fig. A-1738

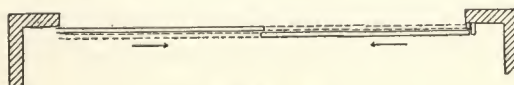


Fig. A-1735

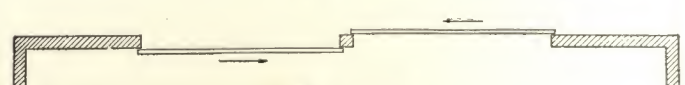


Fig. A-1739



## "Ideal-Sliding" Garage Door Hardware (Continued)

Figure A-1732, which illustrates equipment applied in accordance with plan A-1735 (page 154), and figure A-1741 which shows a cross-section of "Ideal" track, give a clear idea of the construction and operation of this ball-bearing device. The track is a rectangular shaped tube made of very heavy gauge steel drawn to form two parallel runways for steel balls upon which the hanger rolls.

If wicket entrance door is wanted, see page 164 for details and prices of hardware.

From the suggested hardware sets given below, equipments for inside or outside installation of single sliding and parallel sliding doors can be easily selected to suit various doorway conditions as follows:

Single door sliding on single track to one side of doorway (See Fig. A-1734, page 154).

Pair of doors sliding in opposite directions on single track. (See Fig. A-1736.)

2 Parallel doors sliding on two tracks to wall space on one side of doorway. (See Fig. A-1733, page 154.)

2 Parallel doors sliding from jamb to jamb on two tracks. (See Fig. A-1735, page 154.) This type of equipment furnished with weatherstrip if required, as set forth in table below.

2 Parallel doors on two tracks with front wall space in center of doorway. (See Fig. A-1737, page 154.)

4 Parallel doors on two tracks sliding to wall space on both sides of the doorway. (See Fig. A-1738, page 154.)

2 Parallel doors sliding from jamb to jamb on two tracks, one inside and one outside. (See Fig. A-1739, page 154.)

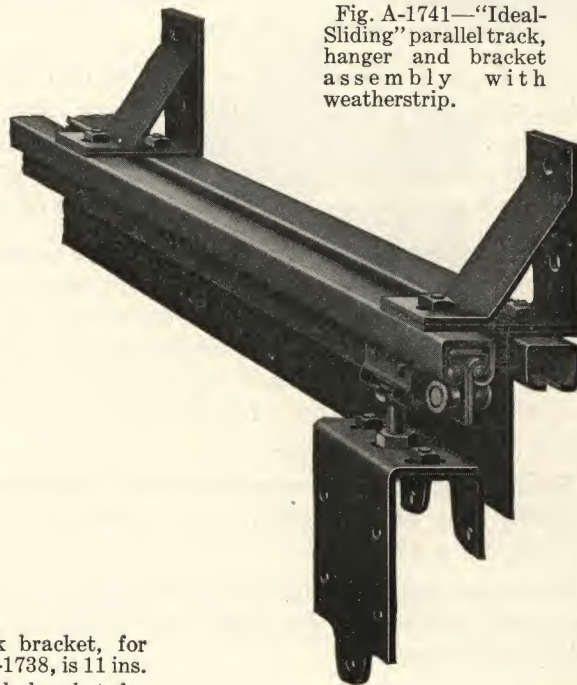
### Headroom Required

Distance between top of door and top of track bracket, for tracks as plans, Fig. Nos. A-1733, A-1735, A-1737, A-1738, is 11 ins.

Distance between top of door and top of track bracket for tracks of plans of Fig. Nos. A-1734, A-1736 and A-1739 is 7 inches.

Fig. A-1740—Cross section of "Ideal-Sliding" ball-bearing track, showing relative position of track, bearings and rider bar.

Fig. A-1741—"Ideal-Sliding" parallel track, hanger and bracket assembly with weatherstrip.



### "Ideal-Sliding" Hanger, Track and Bracket Assembly

Plan	Size of Opening	Using Equipment Number	List Price	Add for each additional foot or fraction of opening	Maximum width of opening	Shipping Wt., lbs.	Add pounds for each additional foot of opening
Fig. A-1733	up to 8'	457 (without weatherstrip)	\$39.70	\$8.75	10'	72	9
Fig. A-1734	up to 8'	454 (without weatherstrip)	36.00	5.00	20'	85	9
Fig. A-1736	up to 8'	454 (without weatherstrip)	30.00	4.50	13'	108	13 1/2
Fig. A-1735	up to 16'	457 (without weatherstrip)	61.00	5.15	20'	144	9
Fig. A-1735	up to 16'	456 (with weatherstrip)	70.00	5.70	20'	176	11
Fig. A-1737	up to 8'	457 (without weatherstrip)	76.70	11.10	10' ea.	216	9
Fig. A-1738	up to 8'	457 (without weatherstrip)	59.00	5.50	20'	108	13 1/2
Fig. A-1739	*up to 8'	454 (without weatherstrip)	55.00	9.00	10'	144	18

No. 454 hangers are for single doors without weatherstrip; No. 456 hangers for parallel doors with weatherstrip and No. 547 hangers are for parallel doors without weatherstrip.

\*With one set R-W No. 454 equipment for each opening.

**Directions for Ordering**—State total width of opening. Number of doors, width and height of each door; thickness of doors, whether for inside or outside installation. Are they for side wall or overhead attachment. Kind of locking bolts desired. State items of hardware wanted.

**Example Order**—1 opening 16 feet wide, 2 doors each 8 feet 2" wide, 8 feet high, 1 1/4 inches thick for inside installations, plan Fig. A-1735, for side wall attachment, with Weatherstrip No. 456; 1 No. 516 Door Bolt and 1 No. 525 Lock. 1 No. 172-1 Parallel Door Floor Guide. 2 No. 272 End Door Guides, 4 No. 435-72 BUMPER SHOES, 1 No. 70-1 Pull, 1 No. 81-1 Bow Handle, 16 feet 456 track.

### List of Parts

### Discount

DESCRIPTION	No. 457 Equipment, without Weatherstrip. For doors up to 500 lbs. each		No. 456 Equipment, with Weatherstrip. For doors up to 500 lbs. each	
	Installation		Installation	
	Inside	Outside	Inside	Outside
Stay Rollers (plans Fig. A-1733, A-1734, A-1739 only, listed page 434)	54	54	54	54
Adjustable Door Binder (plan Fig. A-1733, A-1734, A-1739 only, listed page 440)	89	89	89	89
*Floor End Door Guide (listed page 454)	272	272	272	272
*Door Guide (plans Figs. A-1736, A-1738)	372	372	372	372
*Bumper Shoes, used with Nos. 172, 271, 272, to protect corner of doors (listed page 454)	435-72	435-72	435-72	435-72
Flush Pulls (listed page 458), for doors 1 1/4-2" thick	70-1	70-1	70-1	70-1
Flush Pulls (listed page 458), for doors 2 1/4-2 3/4" thick	70-2	70-2	70-2	70-2
Bow Handles (listed page 459), for doors 1 1/4-2" thick	81-1	81-1	81-1	81-1
Bow Handles (listed page 459), for doors 2 1/4-2 3/4" thick	81-2	81-2	81-2	81-2
Locks (listed page 469)	525 or 510	525 or 510	525 or 510	525 or 510
Bolts (listed pages 473, 465)	524-1 or 516	524-1 or 516	524-1 or 516	524-1 or 516
Center Floor Stop (plan Fig. A-1738 only, listed page 455)	171	171	171	171
*Parallel Door Floor Guide, for 2-track installation (listed page 454)	172-1	172-1	172-1	172-1
Floor Guide and Weatherstrip (listed page 453) (To be used in lieu of door guides, above marked with star)	736 or 737	736 or 737	736 or 737	736 or 737

\*Not required in installations where No. 736 or 737 Floor Guide and Weatherstrip is used.



## Flush Door Hardware

**For Two or Four Flush Parallel Doors with Compound Curved Tracks. Made in Four Sizes of Track**

Two exceptional advantages in "DooR-Way" installations are peculiar to R-W Flush Door Hardware; smooth door surface and economy of wall space.

The doors in closed position stand in one plane, edge to edge, presenting a smooth door surface clear across the doorway. In open position, two doors stand side by side along the wall back of the door jamb, needing only sufficient wall space to accommodate the width of one of the doors.

These important features of smooth door surface in closed position and economy of wall space in open position, are obtained by running one of the doors on a trolley track having a compound curve which sidetracks this door, as it opens, to a position beside its companion door (Figure A-1743). Two doors may be installed to operate toward either side of the doorway.

Similar installations operating from both sides of the doorway may be arranged in accordance with plans, Figs. A-1744 and A-1745.

From the suggested hardware sets and list prices given, hardware equipments for flush door installations may be selected as follows:

- 2 flush doors sliding to one side of the doorway (Fig. A-1743).
- 2 pairs of flush doors sliding toward both sides of the doorway (Fig. A-1744).
- 2 doors sliding back of center wall between two doorways (Fig. A-1745).

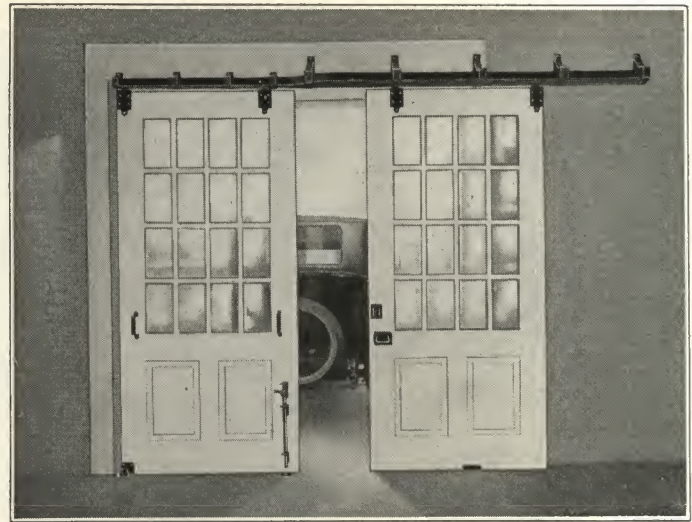


Fig. A-1742—Interior View, Single Car Garage

### Headroom Required

Distance between top of door and top of track bracket

For No. 31 Track.....	10 "
For No. 32 Track.....	11 "
For No. 232 Track.....	11 5/8 "
For No. 33 Track.....	12 1/2 "

### Hardware List for Doors Weighing Up to 800 Pounds Each

DESCRIPTION	No. 31 track Doors weighing up to 300 lbs. each		No. 32 track Doors weighing up to 400 lbs. each		No. 232 track Doors weighing up to 600 lbs. each		No. 33 track Doors weighing up to 800 lbs. each	
	Doors 1 3/4"-2" thick	Doors 2 1/4"-2 3/4" thick	Doors 1 3/4"-2" thick	Doors 2 1/4"-2 3/4" thick	Doors 1 3/4"-2" thick	Doors 2 1/4"-2 3/4" thick	Doors 1 3/4"-2" thick	Doors 2 1/4"-2 3/4" thick
K. J. Ball Bearing Hanger (listed page 157). For use on compound curved track	27 1/2 B-1	27 1/2 B-2	28 1/2 B-1	28 1/2 B-2	29 1/2 B-1	29 1/2 B-2	123 1/2 B-1	123 1/2 B-2
Ball Bearing Hanger. For use on straight track	K. J.	K. J.	K. J.	K. J.	K. J.	K. J.	K. J.	K. J.
Center Track Brackets, (listed p. 195). For single track side wall attachment	27 1/2 B-1	27 1/2 B-2	28 1/2 B-1	28 1/2 B-2	29 1/2 B-1	29 1/2 B-2	123 1/2 B-1	123 1/2 B-2
End Track Brackets (listed page 195). For single track side wall attachment	1x31	1x31	1x32	1x32	1x232	1x232	1x33	1x33
Parallel Ear Ceiling Center Stop Bracket, (listed page 195)	2x31	2x31	2x32	2x32	2x232	2x232	2x33	2x33
Side Center Stop Bracket (listed page 195)	10x31	10x31	10x32	10x32	10x232	10x232	10x33	10x33
Parallel Ear Ceiling Center Bracket (listed page 195). For single and double track attachment	12x31	12x31	12x32	12x32	12x232	12x232	12x33	12x33
Parallel Ear Ceiling Right or Left End Bracket (listed page 195). For single and double track attachment	7x31	7x31	7x32	7x32	7x232	7x232	7x33	7x33
Side Double Center Track Brackets (listed page 195)	8x31	8x31	8x32	8x32	8x232	8x232	8x33	8x33
Side Double End Brackets (listed page 195)	22x31	22x31	22x32	22x32	22x232	22x232	22x33	22x33
Floor End Door Guide (listed page 458)	23x31	23x31	23x32	23x32	23x232	23x232	23x33	23x33
Floor Guide (listed page 458)	272	272	272	272	272	272	272	272
Flush Pull (listed page 458) (to be used when 525 is omitted)	372	372	372	372	372	372	372	372
Bow Handles (listed page 459)	70-1	70-2	70-1	70-2	70-1	70-2	70-1	70-2
Drop Handles (listed page 458) (to be used when 525 is omitted)	81-1	81-2	81-1	81-2	81-1	81-2	81-1	81-2
*No. 1 Compound Curve (Right or Left Hand, Curve shown in Plan Fig A-1743 is Right Hand)	170	170	170	170	170	170	170	170
Locks (listed page 469)	No. 1 CC x31	No. 1 CC x31	No. 1 CC x32	No. 1 CC x32	No. 1 CC x232	No. 1 CC x232	No. 1 CC x33	No. 1 CC x33
Bolts (listed pages 473, 465)	525 or 510 524-1 or 616	525 or 510 524-1 or 616	525 or 510 524-1 or 616	525 or 510 524-1 or 616	525 or 510 524-2 or 616	525 or 510 524-2 or 616	525 or 510 524-2 or 616	525 or 510 524-2 or 616

\*Compound Curve is 15 1/4 inches long but it is preferable to send us floor plan so we can join compound curved track to straight track, eliminating the joint at the end of the curve.  
†No. 150 1/2 B-1 Knuckle Joint Hanger can also be used if desired.  
†No. 150 1/2 B-2 Knuckle Joint Hanger can also be used if desired.

Discount.....



## Flush Door Hardware (Continued)



No. 1—Compound Curve



No. 372—Floor Guide

Straight Track  
Nos. 31, 32, 232, 33



Fig. A-1743

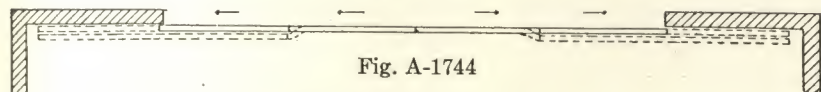


Fig. A-1744

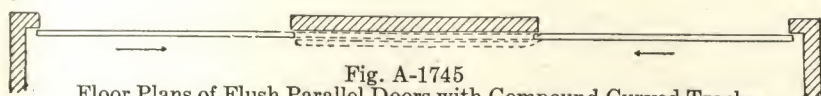


Fig. A-1745

Floor Plans of Flush Parallel Doors with Compound Curved Tracks



K. J. Hanger

### List Price and Specifications of Ball-Bearing Hangers for Sets Listed on Opposite Page

Knuckle Jointed Hangers for use on compound curved track. Packed without brackets		Regular Ball Bearing Hangers for use on straight track Packed without brackets			For Track Number	Track, per foot		For Doors Weighing	Thick- ness of Doors	Distance from bottom of track to center of bolt hole in single side wall bracket	Distance from bottom of track to first bolt hole in double bracket	Distance from first bolt hole to second bolt hole in double bracket	Diam- eter of Bracket Bolt	Distance top of Doors to bottom of track	
Number	List Price, per pair	Number	Per Pair List Price	Wgt., lbs K. J. & Rigid Hangers		List Price	Shp'g. Weight lbs.							Min- imum	Max- imum
27 1/2 B-1 K. J.	\$ 6.25	27 1/2 B-1	\$ 4.40	9	31	\$0.25	1.6	300	1 3/4"-2"	3 1/2"	4 3/4"	2 3/4"	1 1/2"	7/8"	2 3/8"
27 1/2 B-2 K. J.	6.25	27 1/2 B-2	4.40	9	31	.25	1.6	300	2 1/4"-2 3/4"	3 1/2"	4 3/4"	4 3/4"	1 1/2"	7/8"	2 3/8"
28 1/2 B-1 K. J.	8.00	28 1/2 B-1	5.50	11	32	.37	2	400	1 3/4"-2"	4 1/4"	4 3/4"	3 1/4"	1 1/2"	7/8"	2"
28 1/2 B-2 K. J.	8.00	28 1/2 B-2	5.50	11	32	.37	2	400	2 1/4"-2 3/4"	4 1/4"	4 3/4"	3 1/4"	1 1/2"	7/8"	2"
29 1/2 B-1 K. J.	8.80	29 1/2 B-1	6.25	14	232	.45	2.8	600	1 3/4"-2"	4 1/4"	5 1/8"	3 1/2"	1 1/2"	7/8"	1 3/4"
29 1/2 B-2 K. J.	8.80	29 1/2 B-2	6.25	14	232	.45	2.8	600	2 1/4"-2 3/4"	4 1/4"	5 1/8"	3 1/2"	1 1/2"	7/8"	1 3/4"
23 1/2 B-1 K. J.	11.00	123 1/2 B-1	8.25	25	33	.58	3.1	800	1 3/4"-2"	5"	5 1/8"	3 1/2"	3/4"	1 1/2"	2 5/8"
23 1/2 B-2 K. J.	11.00	123 1/2 B-2	8.25	25	33	.58	3.1	800	2 1/4"-3"	5"	5 1/8"	3 1/2"	3/4"	1 1/2"	2 5/8"
50 1/2 B-1 K. J.	11.50	150 1/2 B-1	8.50	25	33	.58	3.1	800	1 3/4"-2"	5"	5 1/8"	3 1/2"	3/4"	1 1/2"	2 5/8"
50 1/2 B-2 K. J.	11.50	150 1/2 B-2	8.50	25	33	.58	3.1	800	2 1/4"-3"	5"	5 1/8"	3 1/2"	3/4"	1 1/2"	2 5/8"

### List Price of Compound Curves

	For No. 31 track	For No. 32 track	For No. 232 track	For No. 33 track
No. 1 Compound Curve, 1'3 1/4" long, each.....	\$7.00	\$7.50	\$8.00	\$9.00

### Locking Bolts for Flush Door Equipments

Plan, Fig. A-1743—1 No. 525 Lock to lock one door from both inside and outside, and 1 No. 524 Bolt to lock one door from the inside only.

Plan, Fig. A-1744—2 No. 525 Locks to lock doors from both inside and outside, and 2 No. 524 Bolts to lock doors from the inside only.

Plan Fig. A-1745—(a) 1 No. 525 Lock or 1 No. 510 Lock to lock one door from both inside and outside, and 1 No. 524 Bolt to lock one door from the inside only.

(b) 2 No. 525 Locks to lock doors from inside and outside, or 2 No. 510 Locks to lock doors from inside and outside.

(c) 1 No. 525 or No. 510 Lock to lock one door from the inside and outside and 1 No. 416 Bolt to lock one door from the inside only.

### Directions for Ordering

**State**—Total width of opening. Number of doors, width and height of each door; thickness of doors. Refer to plan as given above and send sketch showing whether right or left hand doors. Illustration Fig. A-1742 shows right hand doors. State items of hardware wanted.

**Example Order**—1 opening 16 feet wide. 2 flush doors 8 feet 2 inches wide, 8 feet high, 1 3/4 inches thick, sliding to one side of doorway Fig. A-1743 (Doors Right Hand). 1 No. 2x31 Bracket, 3 No. 1x31 Brackets, 1 No. 23x31 Bracket, 8 No. 22x31 Brackets, 1 No. 272 Floor End Door Guide, 1 No. 372 Door Guide, 1 No. 81-1 Bow Handle, 1 No. 1 c. c. x 31 Right Hand Compound Curve, 1 No. 525 Lock, 1 No. 524-1 Cane Bolt, 1 pair No. 27 1/2 B-1 K. J. Hangers, 1 pair No. 27 1/2 B-1 Hangers.

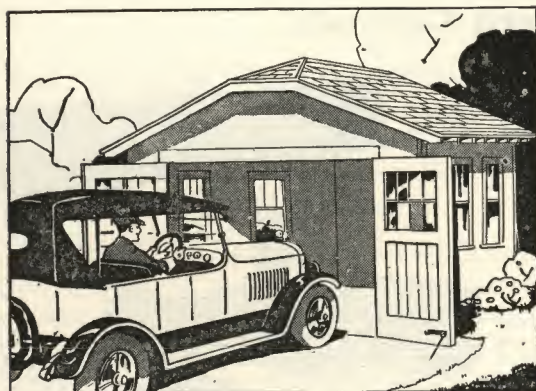
**Note**—If wicket entrance door is wanted, see page 164 for details and prices of hardware.

Discount.....

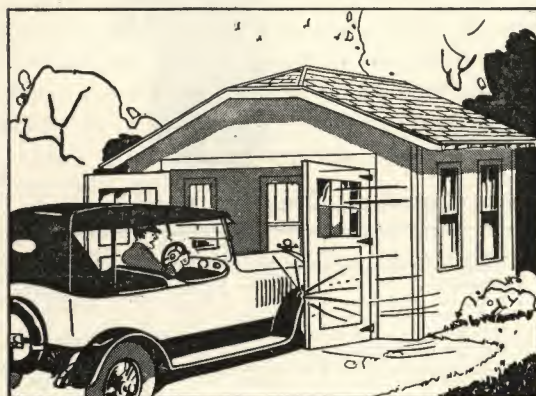
### LOCKS AND BOLTS

Number	Price	Shipping Wt., lbs.
524-1 Bolt, each.....	\$0.75	3
524-2 Bolt, each.....	1.00	4 1/2
416 Bolt, each.....	1.50	2
510 Lock, each.....	3.00	6 1/4
525 Lock, each.....	2.50	4





With Door Dogs



Without Door Dogs

## R-W No. 99 Door Dogs

This is the simplest and we believe the best swing door holder on the market. It can be applied by anyone in five minutes and will last a life time.

It is intended for garage, barn, shop and warehouse swing doors. When you want to keep the door open the point of the pin will stick into the floor, whether it is dirt, wood or concrete, and absolutely hold the door from closing. Wind or jarring can not disengage it, the pin will either be forced deeper into the floor or force the door still further open. It will not give an inch.

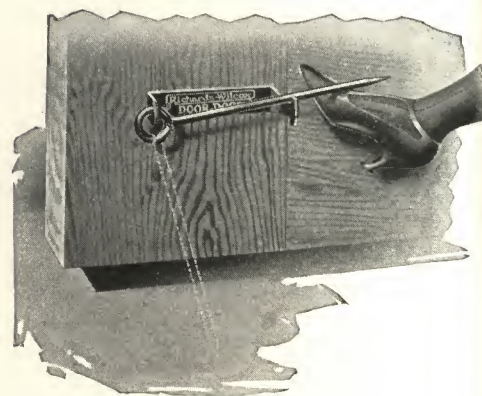


Fig. A-1746

To close the door; lift the pin up with your foot and drop it into the slot and the door will swing shut.

Each pair is reversible and is packed in attractive individual pasteboard box, six boxes in "attention getter" pasteboard counter display carton. The carton is profusely illustrated. Open the carton, place on the counter and the carton will sell the Door Dogs. Retails at 75 cents per pair. Black enamel finish.

Weight per carton of six pair, 8 lbs.

### List Price

No. 99 Door Dogs, 1 dozen pair (2 cartons) ..... \$9.00

Discount.....

### Table for Estimating (per square foot) the Weights of Garage Doors

Kind of Wood	Thickness of Doors					
	1¾"	2"	2¼"	2½"	2¾"	3"
	Weight (lbs.) Per Square Foot					
White Pine.....	3	3¼	3½	3¾	4	4¼
Yellow Pine.....	3¾	4¼	4½	4¾	5¼	5½
Cypress.....	3¾	3¾	4	4¾	4¾	5
Spruce.....	3	3¼	3½	3¾	4	4¼
Fir.....	3⅝	4⅛	4¾	4¾	5⅛	5½

The above weights are based on panel doors with glass in the upper part and measuring 4x8 feet. Narrower doors will run slightly heavier per square foot.



## Two Doors With But a *Singleknob*

(Licensed under Singleknob. Patented.)



Fig. A-1747—It is not necessary to open both doors to gain entrance to the garage. One door will open wide enough, for entrance purposes, before the movement of the second door starts.

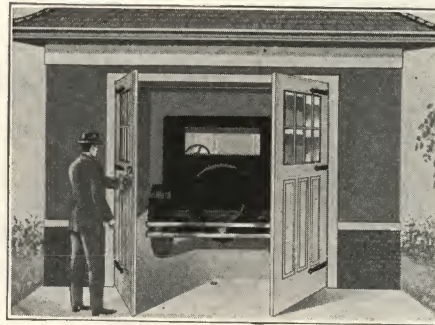


Fig. A-1748—When opening both doors, grasp the handle and pull back on one door. After the first door is about half way open, the other door starts to swing.



Fig. A-1749—When both doors are open, the No. 99 Door Dog holds them firmly in place. There is no danger of smashing fenders or breaking headlights.

### One Pull Opens Both Doors

One push closes them

As shown in the illustrations above, it is possible to open one door part way, or far enough for a person to enter the garage, without disturbing the other door.

When it is desired to take the car out of the garage, it is simply necessary to pull on the single knob and both doors will open wide. When they are in this position, by dropping the Door Dog which is attached to one of the doors both of the doors will be held open, regardless of the wind pressure. When the doors are closed, there is always a slight spring pressure on them which holds them tight.

When an astragal is used on one of the doors overlapping the other one, it is only necessary to lock one door and the other is also locked in place. The Locking Bolt is on the inside of the garage, but is operated from the outside. The handle on the outside is arranged so that it can easily be padlocked. This device holds the doors open at slightly more than right angles to the door-way. The Singleknob is adjustable for any width opening from 7' to 9' wide.

## R-W No. 600 *Singleknob*

Garage Door Controller

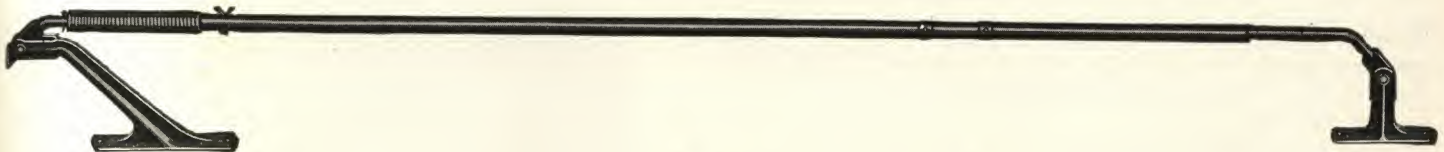


Fig. A-1750

The R-W No. 600 Singleknob Garage Door Controller can easily be applied to any pair of hinged garage doors which have already been hung; the width of opening being from 7' to 9'. This device is simple to apply and positive in action. There are no gears and no pulleys to wear out, thus insuring long life. The doors can be locked from the outside with an ordinary padlock, and should be bolted on

the inside with either No. 517x527 or 317x527 Garage Door Bolts.

It is not necessary to open both doors in order to enter the garage, as the movement of the second door does not begin until the first door is about half way open. It is necessary to pull but one door to open both doors.

### List Price

R-W No. 600 Singleknob Garage Door Controller only, weight 15½ lbs. each.....\$6.00

Discount.....

*There is a fascination when opening one door to see the other open by itself*



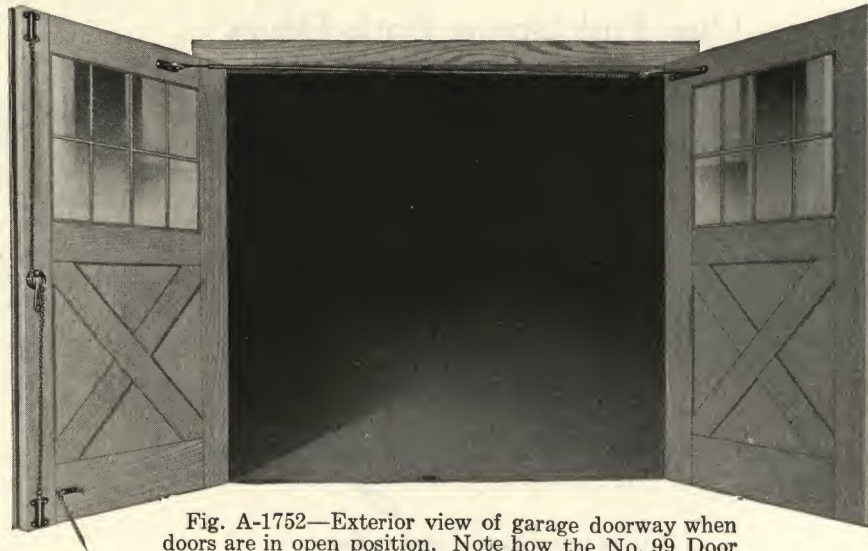


Fig. A-1751—Exterior view of garage doorway equipped with No. 564 Hardware. Padlock may be applied to the handle of the bolt, which will securely lock both doors.

## R-W No. 564 and No. 364 Garage Swing Door Hardware, Including No. 600

### *Singleknob*

All the hardware in this set is R-W standard goods, and built to give satisfactory service. The hinges should not be confused with the common "T" hinges, furnished with swing door sets, as these are high grade 10" mortised pintel, steel, anti-friction hinges. The No. 317x527 Garage Door Bolt will hold the doors firmly when closed, and the outside handle arrangement provides a place for attaching padlock. One No. 99 Door Dog is furnished with this set. This Door Dog will positively hold the doors open and prevent the wind from banging them around.



When Doors  
are open the  
No. 99  
Door Dog  
holds them  
immovable

### *Singleknob*

may be  
adjusted to  
regulate angle  
at which  
doors stand

Fig. A-1752—Exterior view of garage doorway when doors are in open position. Note how the No. 99 Door Dog holds the doors firmly in open position.

This set of hardware comes packed complete with all bolts and screws necessary for attaching, and consists of the following:

- 1—No. 317 x 527 Garage Door Bolt.
- 1—No. 99 Door Dog.
- 3—Pair No. 1036-10" Hinges.
- 1—No. 600 Single Knob.
- 1—Package Screws and Bolts.

Note—We do not furnish the padlock.

#### List Price

No. 564 Hardware, weight 42½ lbs. complete. . . . . \$22.00

#### Discount

**Note**—If ordinary extra heavy reversed pad Tee hinges are desired instead of the No. 1036 type, order set No. 364. With the exception of the hinges, the hardware is exactly the same as set No. 564.

#### List Price

No. 364 Hardware, weight 34½ lbs. complete. . . . . \$15.00

#### Discount

Fig. A-1753—Interior view of doors showing position of the single-knob when the doors are closed; also the position of the Door Dog when not in use.





## R-W No. 664 Garage Swing Door Hardware, Including No. 600

### *Singleknob*

Each item in this set of hardware is a quality product and the hinges are heavy enough for large thick doors. The hinges are 18" heavy mortised Pintels, steel anti-friction type.

The bolt is similar to the popular No. 517 Garage Door Bolt, which is furnished with our Slidetite Sets, only it has the added advantage of a handle on the outside of the doors to which a padlock can be attached, its number is 517x527. One No. 99 Door Dog is furnished with this set which will hold the doors in position when open.



Fig. A-1754—Exterior view of Garage doorway equipped with No. 664 Hardware

### *Singleknob*

is applicable  
to any swing  
doors already  
installed

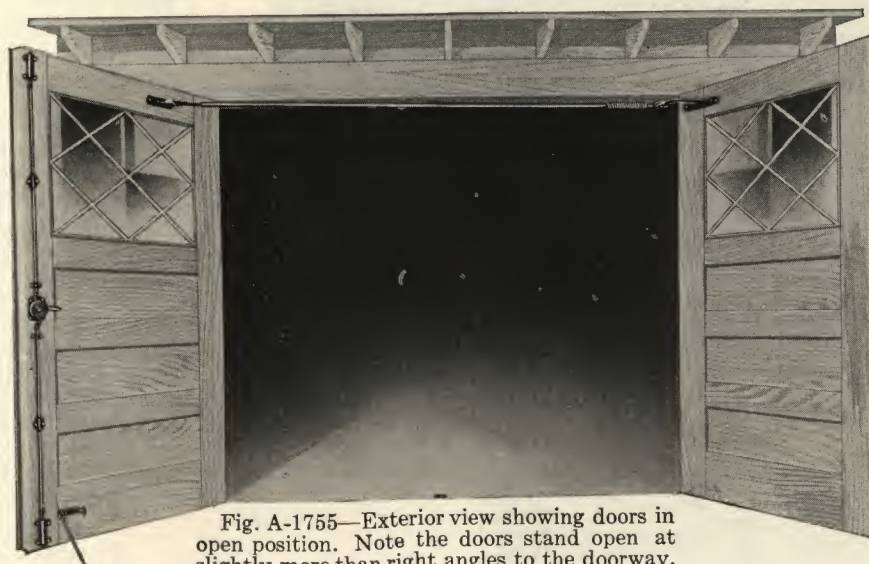


Fig. A-1755—Exterior view showing doors in open position. Note the doors stand open at slightly more than right angles to the doorway.

When doors  
are closed they  
can be  
padlocked  
from the  
outside



Fig. A-1756—Interior view of Garage doorway equipped with No. 664 Hardware. Note the substantial top and bottom door bolt used with this set.

This set of hardware comes packed complete with bolts and screws necessary for erection, and consists of the following:

- 1—No. 517x527 Garage Door Bolt.
- 1—No. 99 Door Dog.
- 2—Pairs No. 1036-18" Hinges.
- 1—Pair No. 1036-10" Hinges.
- 1—No. 600 Singleknob.
- 1—Package Screws and Bolts.

**Note**—We do not furnish the padlock.

#### List Price

No. 664 Hardware, wt., 46½ lbs., complete.....\$25.00

Discount.....



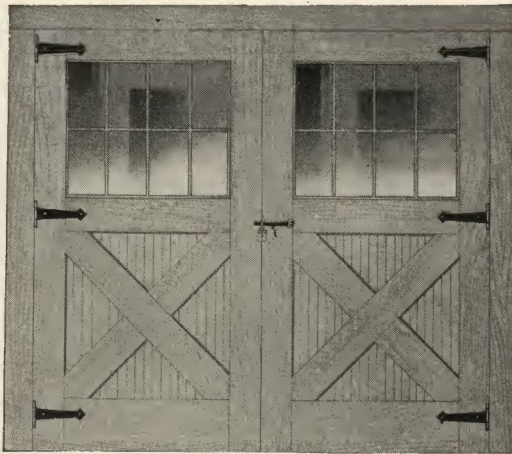


Fig. A-1757—Exterior View

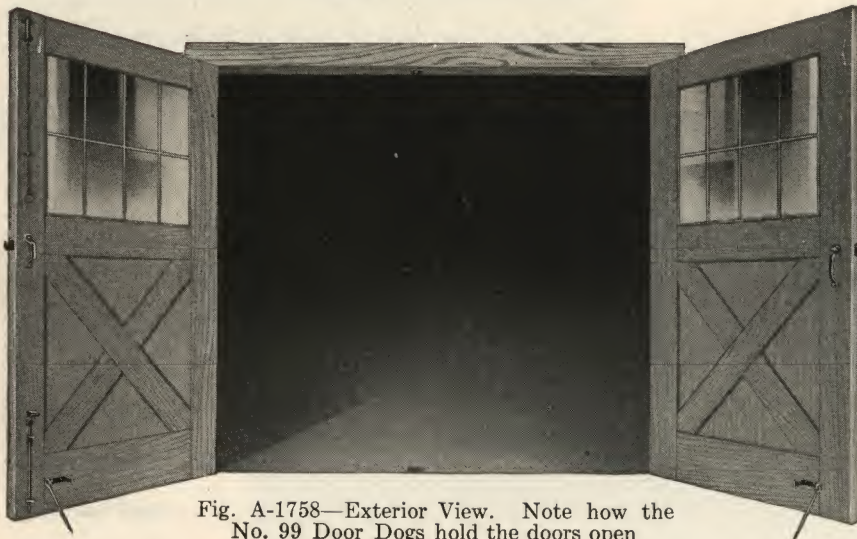


Fig. A-1758—Exterior View. Note how the No. 99 Door Dogs hold the doors open

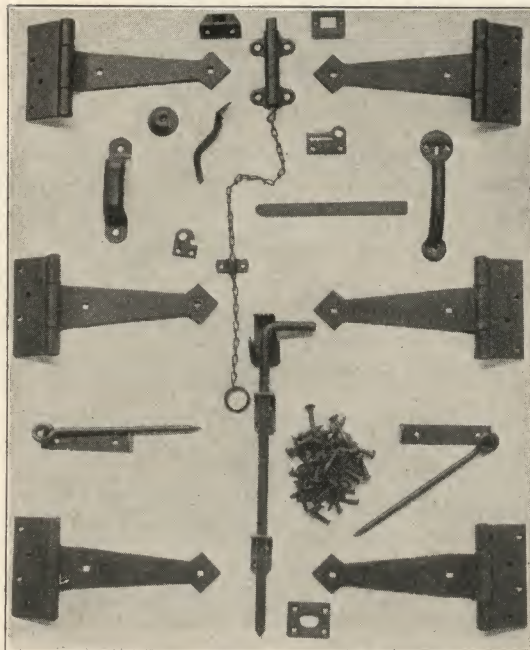


Fig. A-1759—Illustration Showing No. 534 Parts

R-W No. 534 and No. 334

## Swingtite

### Garage Door Hardware

With 10-inch Heavy Mortised Pintel Hinges

All the hardware in this set is R-W standard goods and built to give satisfactory service.

The Hinges should not be confused with the common T Hinges furnished with other sets, as these are high grade 10" Mortise Pintel; steel anti-friction hinges.

The No. 514 Spring Top Bolt and No. 524 Bottom Cane Bolt will hold the door firmly when closed, and the latch furnished affords a handle as well as a plate for attaching padlock.

One No. 99 Door Dog (See page 158) is furnished for each door. These Dogs will positively hold the doors open at any desired position and prevent the wind from banging them around. Prevent accidents to fenders and head lights.

This set of hardware comes packed complete with all bolts and screws necessary for attaching, in strong box, and consists of the following:

- 1—No. 514-1 Spring Top Bolt
- 1—No. 524-1 Bottom Cane Bolt
- 1—No. 71-1 Bow Handle
- 1—No. 534 Latch
- 1—Pair of No. 99 Door Dogs
- 3—Pairs No. 1036-10" Hinges
- 1—Package Screws and Bolts

#### List Price

No. 534, weight, 28 lbs., complete set. . . . \$13.00

Discount.....

**Note**—If ordinary extra heavy reversed pad Tee hinges are desired instead of the No. 1036 type, order set No. 334.

#### List Price

No. 334, weight, 20 lbs., complete set. . . . \$7.00

Discount.....

**Note**  
No Lock is included  
in this Set  
of Hardware





R-W No. 634

*Swingtite*

## Garage Door Hardware

With 18-Inch Heavy Mortise Pintel Hinges and Heavy Grip Handle Latch

Each item in this set of hardware for swing doors is quality hardware.

These hinges are heavy enough for large doors and are of the mortise pintel, anti-friction type.

The No. 350 Latch has two extra heavy grip handles, and Latch Thumb Lift. A heavy bow handle is furnished for the other door; also No. 514 Top Spring Bolt and No. 524 Bottom Cane Bolt.

Two Lock Plates are furnished. One No. 99 Door Dog (see page 158) is included for each door which will positively hold the doors open at any desired position, and prevent the wind from banging them around. They prevent accidents to fenders and head lights.

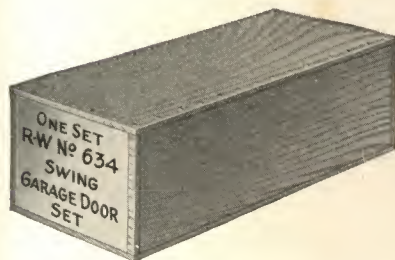
This set of hardware comes packed complete with all bolts and screws necessary for erection, and consists of the following:

- 1—No. 514-1 Top Spring Bolt
- 1—No. 524-1 Bottom Cane Bolt
- 1—No. 81-1 Bow Handle
- 1—No. 350 Latch
- 1—Pair No. 99 Door Dogs
- 2—No. 436 Lock Plates
- 2—Pair No. 1036-18" Hinges
- 1—Pair No. 1036-10" Hinges
- 1—Package Screws and Bolts

### List Price

No. 634, weight, 36 lbs., complete set. . . . . \$18.25

Discount.....



**Note**  
No Padlock is included in this set of hardware



Fig. A-1760—Exterior View

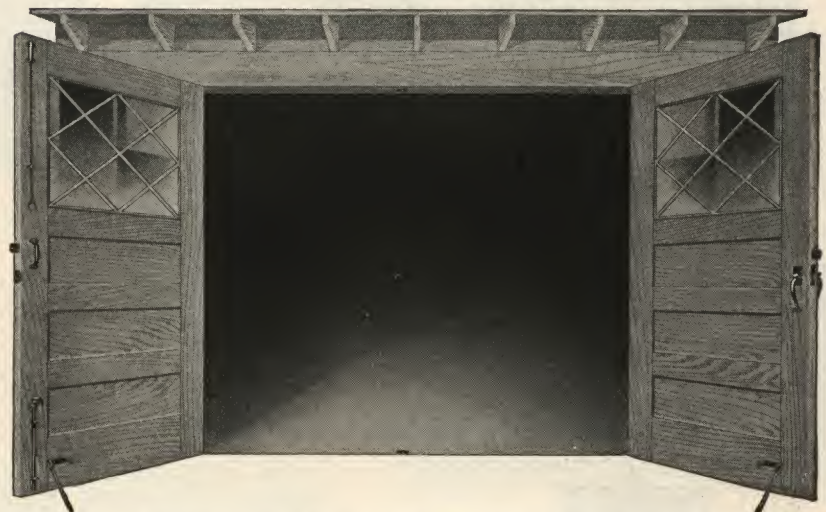


Fig. A-1761—Exterior View. Note how the No. 99 Door Dogs hold the Doors Open

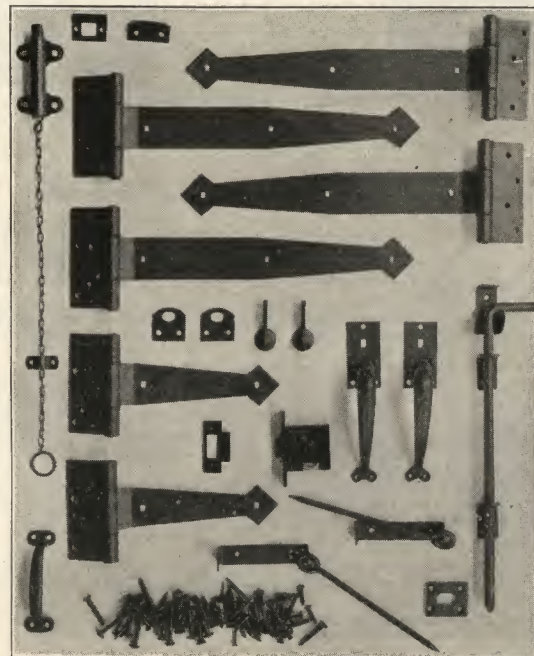


Fig. A-1762—Illustrations Showing No. 634 Parts

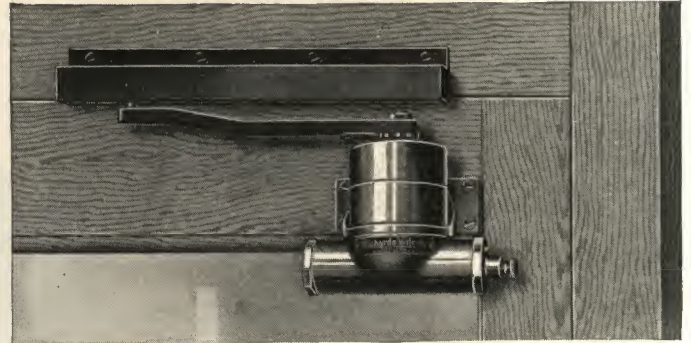




Fig. A-1763—Interior view of public garage doorway provided with wicket entrance door equipped with R-W Wicket Door Hardware.

## R-W Wicket Entrance Door Hardware

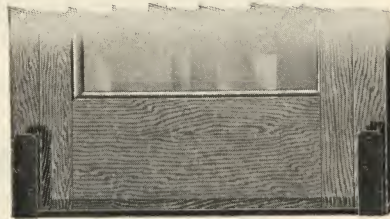
Consists of:—  
Door Check,  
Butt Hinges,  
Steel Threshold.



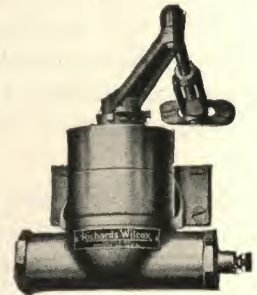
No. 943-2 or -3 Special Door Check attached to door and cross rail.



No. 435—Butt Hinge



No. 1035—Steel Threshold



No. 643-2 or -3  
Regular Door Check

### Thresholds

Made to order according to size and thickness of doors. In ordering state: width of large doors in which Wicket Door is mounted, width of Wicket Door and thickness of door. Shipping weight, approximately 12 pounds Price each (size to order).....\$10.00

### Door Checks

For Wicket Doors not over 30 inches wide, up to six feet 0 inches high and 1 3/4 inches thick, mounted in "Slidetite" or swinging doors. Shipping weight, 7 1/2 pounds.  
No. 943-2, Single Arm Check, each.....\$8.00

For heavier doors not over 30 inches wide and not exceeding 6 feet 6 inches in height, and 2 1/2 inches in thickness, mounted in "Slidetite" or swinging doors. Shipping weight, 9 1/2 pounds.  
No. 943-3, Single Arm Check, each.....\$9.00

For Wicket Doors not over 30 inches wide, up to 6 feet 0 inches high and 1 3/4 inches thick, mounted in sliding doors inside of building. Shipping weight, 7 3/4 pounds.  
No. 643-2, Regular Check, each.....\$6.60

For Wicket Doors not over 30 inches wide and not exceeding 6 feet 6 inches in height and 2 1/2 inches in thickness, mounted in sliding doors inside of building. Shipping weight, 9 3/4 pounds.  
No. 643-3, Regular Check, each.....\$8.00

### List Price of Complete Sets

Wicket Door Hardware for "Slidetite" or Swinging Door. Wicket Doors not over 30 inches wide up to 6 feet 0 inches high and 1 3/4 inches thick as follows:

- 1 No. 1035 Steel Threshold, size as requested.
- 1 No. 943-2 Door Check with single arm.
- 1 Pair No. 435 Japanned Butt Hinges; size 4 x 4 inches.

Shipping weight, 21 pounds.  
Price, per set.....\$18.60

Wicket Door Hardware for "Slidetite" or Swinging Door. Wicket Doors not over 30 inches wide and not exceeding 6 feet 6 inches in height and 2 1/2 inches in thickness, as follows:

- 1 No. 1035 Steel Threshold, size as requested.
- 1 No. 943-3 Door Check with single arm.
- 1 Pair No. 435 Japanned Butt Hinges. Size 5 x 5 inches.

Shipping weight, 23 pounds.  
Price, per set.....\$20.00

Wicket Door Hardware for Sliding Door inside of building, Wicket Doors not over 30 inches wide, up to 6 feet 0 inches high and 1 3/4 inches thick as follows:

- 1 No. 1035 Steel Threshold, size as requested.
- 1 No. 643-2 Regular Door Check.
- 1 Pair No. 435 Japanned Butt Hinges. Size 4 x 4 inches.

Shipping weight, 28 3/4 pounds.  
Price, per set.....\$17.00

Wicket Door Hardware for Sliding Doors inside of building, Wicket Doors not over 30 inches wide, and not exceeding 6 feet 6 inches in height and 2 1/2 inches in thickness, as follows:

- 1 No. 1035 Steel Threshold, size as requested.
- 1 No. 643-3 Regular Door Check.
- 1 Pair No. 435 Japanned Butt Hinges, 5 x 5 inches.

Shipping weight, 24 1/4 pounds.  
Price, per set.....\$18.50

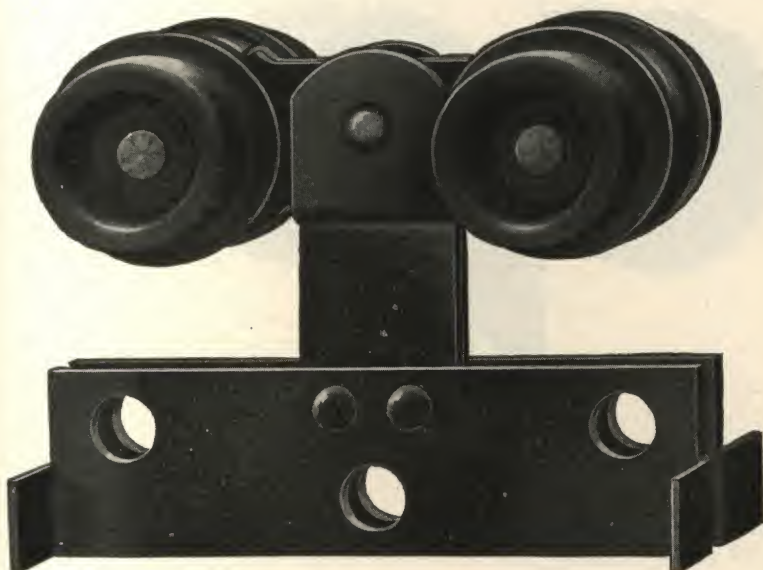
Note—These sets do not include latch or lock for wicket doors. (See page 472.)

Discount.....



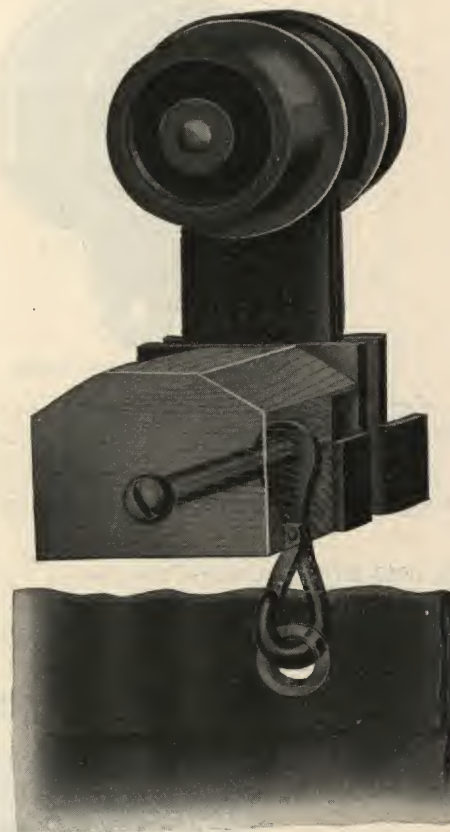
## Theatre Curtain Hangers

R-W No. 391



R-W No. 391—Curtain Hanger

R-W No. 390



R-W No. 390 Curtain Hanger

The R-W Nos. 390 and 391 curtain hangers are designed especially for use in hanging theatre curtains which are controlled by manually or electrically operated cords or cables as shown on page 167. The illustration of the No. 390 hanger shows the method of attaching the curtains to hangers. Hangers should be spaced 12 to 24 inch centers. The No. 167 hanger is used only at the end of the curtain which is over the center of the stage when curtains are closed. The operating cords are attached to the end holes.

Steel frames have bumpers on both ends. The pressed steel wheels are  $1\frac{7}{8}$  inches in diameter, ball bearing. No. 390 hangers have hardwood guides for operating cords. Black enamel finish. Track No. 526 shown on page 73. Brackets same as for No. 31 track shown on page 194.

### List Price

No. 390 Hangers, weight 1 lb. Each.....	\$2.50
No. 391 Hangers, weight, $1\frac{3}{4}$ lbs. Each.....	4.00
No. 526 Track (see page 73). Per foot .....	.70

Discount.....

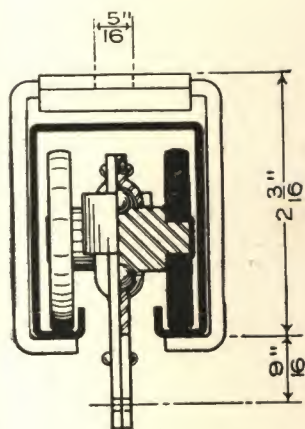


Fig. A—1764

## R-W No. 0030-A Theatre Curtain Hangers

Especially designed for light weight curtains or draperies such as are used in show windows, doorways or small stage openings.

Steel frames with bumpers attached; steel wheels  $1\frac{1}{2}$  inch diameter regular, fibre wheels on special order; ball bearings; natural finish. Track, No. 30 shown on page 193. Track brackets shown on page 194.

### List Price

No. 0030-A Hangers, steel or fibre wheels, weight $\frac{1}{4}$ lb Each.....	\$1.00
No. 30 Track (see page 193). Per foot .....	.20

Discount.....



R-W No. 0030-A



## Curtain Hangers

R-W No. 0019-A



Width Over all, 2 $\frac{3}{8}$  inches.

R-W No. 0016-A



Width Over all, 5 Inches.

Very popular hangers, designed particularly for use with manually or electrically operated theatre curtains, the curtains being controlled by cords or cables as shown on next page.

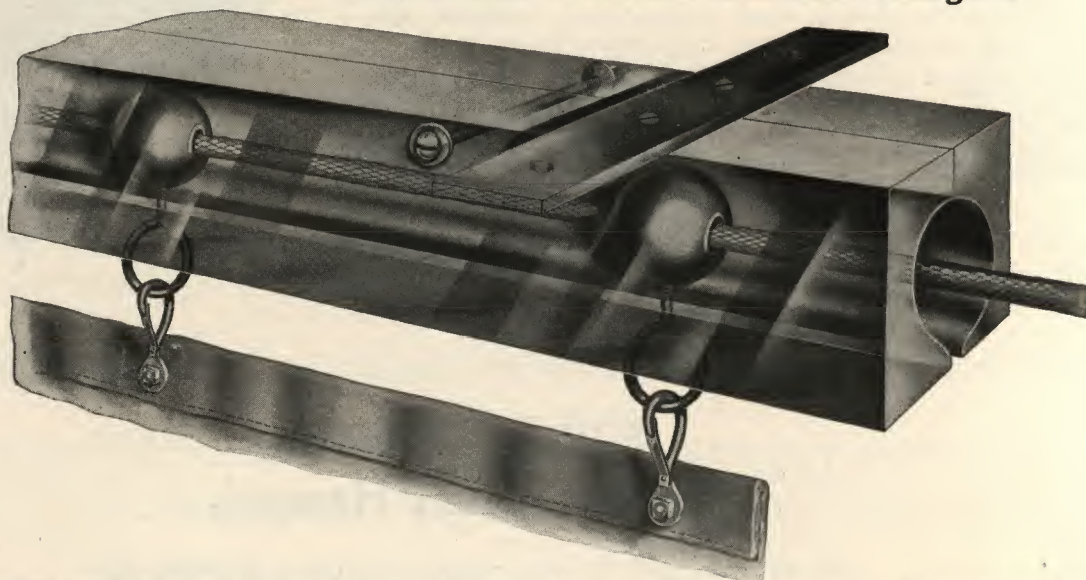
Hangers should be spaced with from 12 to 24 inch centers. Ball-bearing, 2 $\frac{1}{8}$ -inch fibre wheels. Steel frames with bumpers at both ends. Black enamel finish. Run in No. 31 trolley track.

### List Price

No. 0019-A Hangers, weight 5 oz., each.....	\$ 1.50
No. 0016-A Hanger, weight $\frac{3}{4}$ lb., each.....	2.50
No. 31 Trolley Track, weight 1 $\frac{3}{8}$ lbs. per ft. Per hundred feet.....	25.00

Discount.....

## R-W No. 290 Track and No. 291 Curtain Hangers



Track is a heavy wood section, designed to deaden the sound. It is attached to ceiling or overhead supports by means of steel plates. Curtains are mounted on carriers, spaced from 12 to 18 inch centers. The carriers are made of hardwood, are ball-shaped with a brass bushed hole through the center to receive the operating rope. Screw eyes attached to the bottom of the carriers afford a means

for attaching the curtain. The snaps shown attached to the curtain are not furnished as part of the equipment. A knot in the rope on each side of the carrier at the end of the curtain, toward the center of the opening, enable the carriers to be moved back and forth, and the curtains opened or closed.

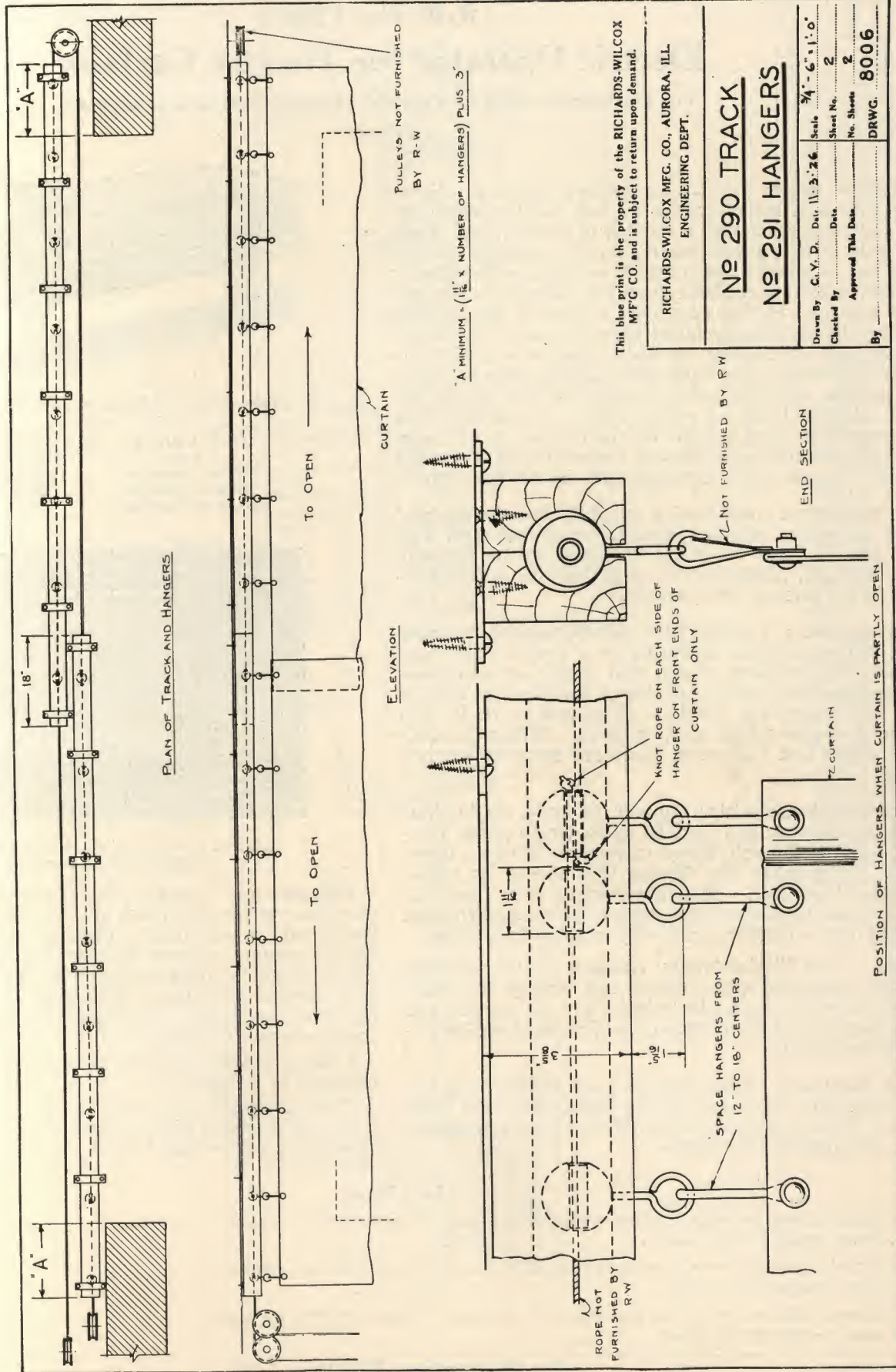
### List Price

No. 290 Straight Track, per foot.....	\$ .65
No. 290 Curves, 18" radius, 90°, each.....	25.00
No. 291 Carriers, each.....	1.00

Discount.....



**Diagram Showing**  
**R-W Nos. 290 Track and 291 Hangers**  
**Applied to Horizontal Sliding Curtains**



(over)



R-W No. 1100

## Electric Operator for Theatre Curtains

For Horizontal Slide or Vertical Theatre Curtains or Screens

Patented

**U**SED largely in moving picture theatres. Saves time and labor expense in any theatre where the curtains are moved a number of times a day. Does away with having a man waiting on the stage for the end of the reel to operate the curtains, as this can be done by the moving picture operator from his position in the rear of the theatre. He has as perfect control of the curtains as though he were manipulating them by hand. By simply pressing push buttons he can open, close or stop the curtain as he desires. The curtain or curtains may be closed from several different points throughout the theatre by use of additional sets of push buttons, if desired. It is not necessary to hold a finger on the button, merely press it, and the curtains are stopped at the end of the movement by limit switches which automatically cut off the current.

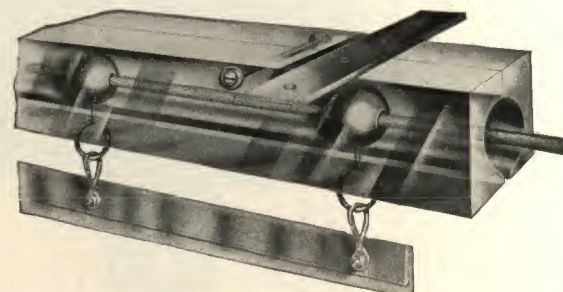
The equipment consists of a specially built motor and driving apparatus, chain, sprockets, relay and push buttons. Hangers and track are furnished for horizontally sliding curtains, illustrated on page 166, but are not included in the price of the operator.

**Driving Unit:** Consists of a specially wound reversing motor, reduction gears operating in a grease tight case, sprocket with releasing clutch and a pair of adjustable limit switches and tripping device all mounted as a single unit. The motors are rated as  $\frac{1}{4}$ ,  $\frac{1}{3}$  and  $\frac{1}{2}$  H. P., and are wound to give a high starting torque. The rotor shaft of the motor and the worm shaft are mounted on ball bearings.

Motors are furnished for 110 volt, 60 cycle, single phase alternating current; 220 volt, 60 cycle, single phase alternating current; 110 volt, direct current; or 220 volt, direct current. If possible, the driving unit should be placed below the stage floor. The disconnecting lever operating the clutch can be made long enough to be reached through the stage floor, so motor can be disconnected from stage.

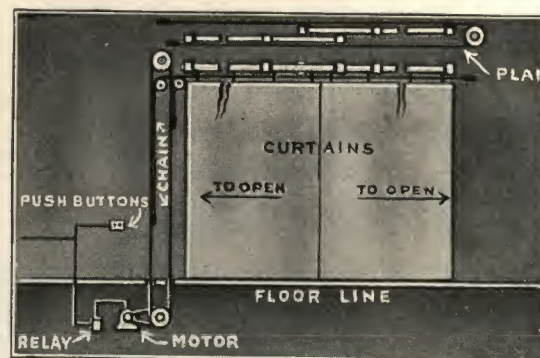
**Relay:** The Electric Relay consists of two solenoids made to correspond with current and voltage of motor, properly wired to control the current for the opening and closing operation of the curtains, and furnished enclosed in steel protective box.

**Push Buttons:** Three sets of push buttons are furnished regularly, each set having open, stop and close contact. These can be placed at different points, wherever desired, throughout the theatre



Showing No. 290 Track and No. 291 Curtain Hangers

Push a Button  
and  
The Curtains  
Open, Close or  
Stop as Desired!



Plan and Elevation of an 1100 Horizontal Slide Theatre Curtain Installation

**Hangers and Track:** When used with horizontal slide curtains, our No. 290 Track and No. 291 Hangers are used, illustrated on page 166. The hangers are spaced 12 to 18-inch centers. These ball hangers run in our No. 290 Track, made of hard wood, thus insuring smooth, easy and noiseless operation. The track is attached to overhead beam or ceiling. At the center of the stage, the tracks should overlap 18 inches.

Vertical theatre curtains or screens must be counter-balanced by weights.

Pulleys, electric wires and cords or cables for pulling horizontal curtains and for suspending vertical curtains or screens are not furnished as a part of this equipment.

### List Price

No. 1100 Electric Theatre Curtain Operator with $\frac{1}{4}$ H.P. Motor. Weight, 300 lbs., complete.....	\$350.00
$\frac{1}{4}$ H. P. Motor, weight 55 lbs. Each.....	100.00
No. 1100 Electric Theatre Curtain Operator with $\frac{1}{3}$ H. P. Motor. Weight, 340 lbs., complete.....	400.00
$\frac{1}{3}$ H. P. Motor, weight 60 lbs. Each.....	140.00
No. 1100 Electric Theatre Curtain Operator with $\frac{1}{2}$ H. P. Motor. Weight, 400 lbs., complete.....	450.00
$\frac{1}{2}$ H. P. Motor, weight 92 lbs. Each.....	160.00

See Diagrams on Following Page

Discount.....







## R-W No. 1100 Stewart Electric Door Operator



A-1765—Stewart Electric Door Operator opening a Single Sliding Door

Electric Door Operators are used for opening and closing the doors of private and public garages.

When installed on private garage doors the convenience can hardly be measured as the doors may be opened or closed by simply pressing upon push buttons which may be located at desired points; in the house; on a post in the driveway; and in the garage itself.

When installed on public garage doors its value cannot be overestimated, due to the following facts:

1st—Motorists, wishing to enter a garage with their car, dislike to be kept waiting even a few minutes for the garage doors to be opened; such garages as are equipped with electric door operators permit the stenographer in the garage (without moving from her desk) to press a button, thereby opening the doors as soon as a motorist turns his car towards the garage entrance. Such service pays big dividends.

2nd—A mechanic's time is not wasted nor his work interrupted by having to walk way up front to open or close the doors many times a day.

3rd—Much heat, and therefore, many dollars worth of coal is saved each winter because electric operators open

and close the doors quickly, permitting only the minimum amount of heat to escape. This will be found to be a very real saving.

The illustrations, on this and the opposite page, give a CLEAR view of the motor, relay, limit switches and push buttons, trolley track and hangers, showing how they are above the door level, away from possible accident, and occupying no valuable space.

No. 1100 Stewart Electric Operator Equipment consists of: a driving unit, relay, magnetic brakes, limit switches, push button controllers, pulleys, sprockets, attachments to doors and the necessary driving cables or chains. It does not include track, brackets, hangers or other hardware which is required to operate the doors manually. This electric operator equipment is furnished complete and can be installed by any electrician.

Recommended for.....Single Sliding Doors.....  
Sliding Doors in Pairs.....Vertical Sliding Doors. Can also be used on other types of doors.

Extra large or heavy sliding doors require special operating devices which will be quoted on when complete details are given.



## R-W No. 1100 Stewart Electric Door Operator

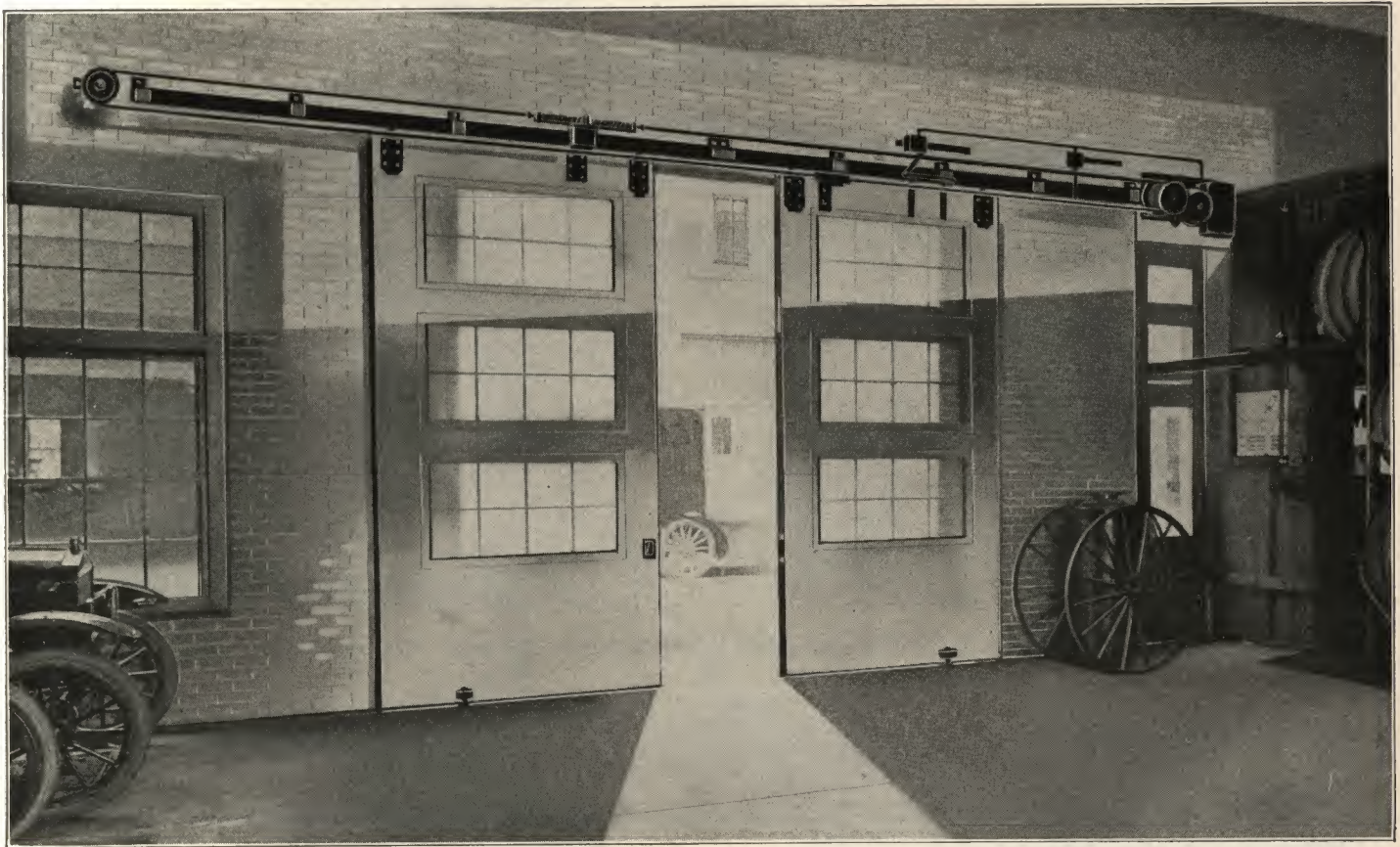


Fig. A-1766—Stewart Electric Door Operator Operating Double Sliding Doors

The Driving Unit consists of a special wound reversing motor, reduction gears operating in a grease-tight case, releasing clutch and the winding drum for cable or sprocket for chain. The motors are rated as  $\frac{1}{4}$ ,  $\frac{1}{2}$  and  $\frac{1}{2}$  H.P., and are wound to give a high starting torque. The rotor shafts of the motors and the worm shaft of the reducing gears are mounted on ball bearings. The motors are furnished for 110 Volt, 60 Cycle, Single Phase, A. C.; 220 Volt, 60 Cycle, Single Phase A. C.; 110 Volt D. C. or 220 Volt D. C.

The relay consists of two solenoids made to correspond with current and voltage of motor, properly wired to control the current for the opening and closing operation of the door. The relay is enclosed in a steel protected box.

The limit switches automatically shut off the current when the doors reach the maximum open or closed position.

A magnetic brake is built into the driving unit to stop the motor instantly upon the breaking of the electric circuit either thru the limit switches or stop buttons. The brake prevents over-travel of the door which might result in wedging or binding.

Three sets of push buttons are regularly furnished with each operator. Each set has three buttons, one to control the opening movement, one to control the closing movement and the third to stop the doors in any position. The control buttons can be placed at any point in the building. Any number of push buttons can be used.

Blue prints furnished on request.

### Directions For Ordering

Send sketch showing all dimensions as follows:

1. Number of openings.
2. Width of opening.
3. Height of opening.
4. Thickness of doors.
5. Distance jamb to side wall, right side.
6. Distance jamb to side wall, left side.
7. Distance top of door to nearest obstruction or ceiling. (If arched doors, measure from highest point and give rise of arch.)
8. Is electric current direct or alternating.
9. Give voltage, cycle and phase.
10. State kind of door; single slide, pair of slide, vertical slide, single swing, pair of swing, or "Slidetite" folding doors.

### Prices Quoted on Application



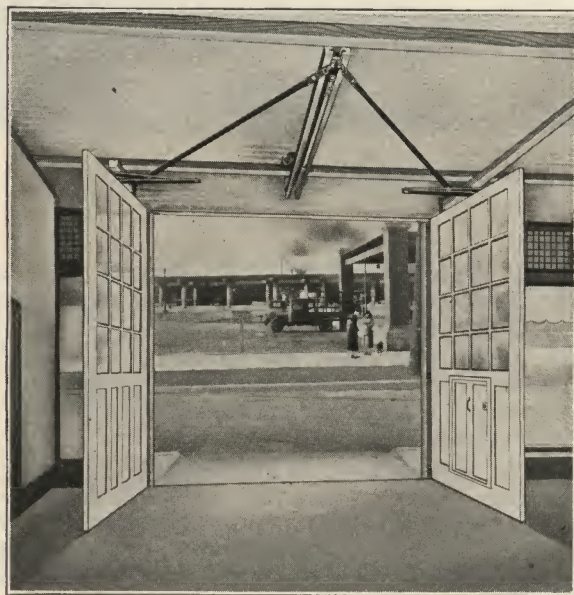
## R-W No. 1200 Aut-O-Dor Electric Door Operator

(Patented)

For Public and Private Garages, Industrial Door Openings, Fire Department Engine and Hose Houses, Police Stations. Etc.



Fig. A-1767—Above illustrations show Aut-O-Dor applied to a 4-Door Slidetite installation. Note the small wicket entrance door.



Patented



Fig. A-1768—Aut-O-Dor equipment applied to swing doors. Doors are quickly opened or closed without slam, jerk or jar.

### For Garage Doors

Wherever it is desired that garage doors be opened frequently, whether in public or private garages, an Aut-O-Dor Operator will give long years of uninterrupted service.

It opens and closes the doors quickly, quietly, without slam, jerk or jar, and with the least amount of personal effort, merely the pressing of an electric push button.

### For Industrial Doors

In industrial plants the efficient opening and closing of large exterior doors has long been a vexing problem. This has been solved by Aut-O-Dor Operators. The doors may now be opened or closed by truck drivers, who without leaving their seats, touch a push button or pull a drop cord conveniently located. This eliminates a doorman and the resulting overhead.

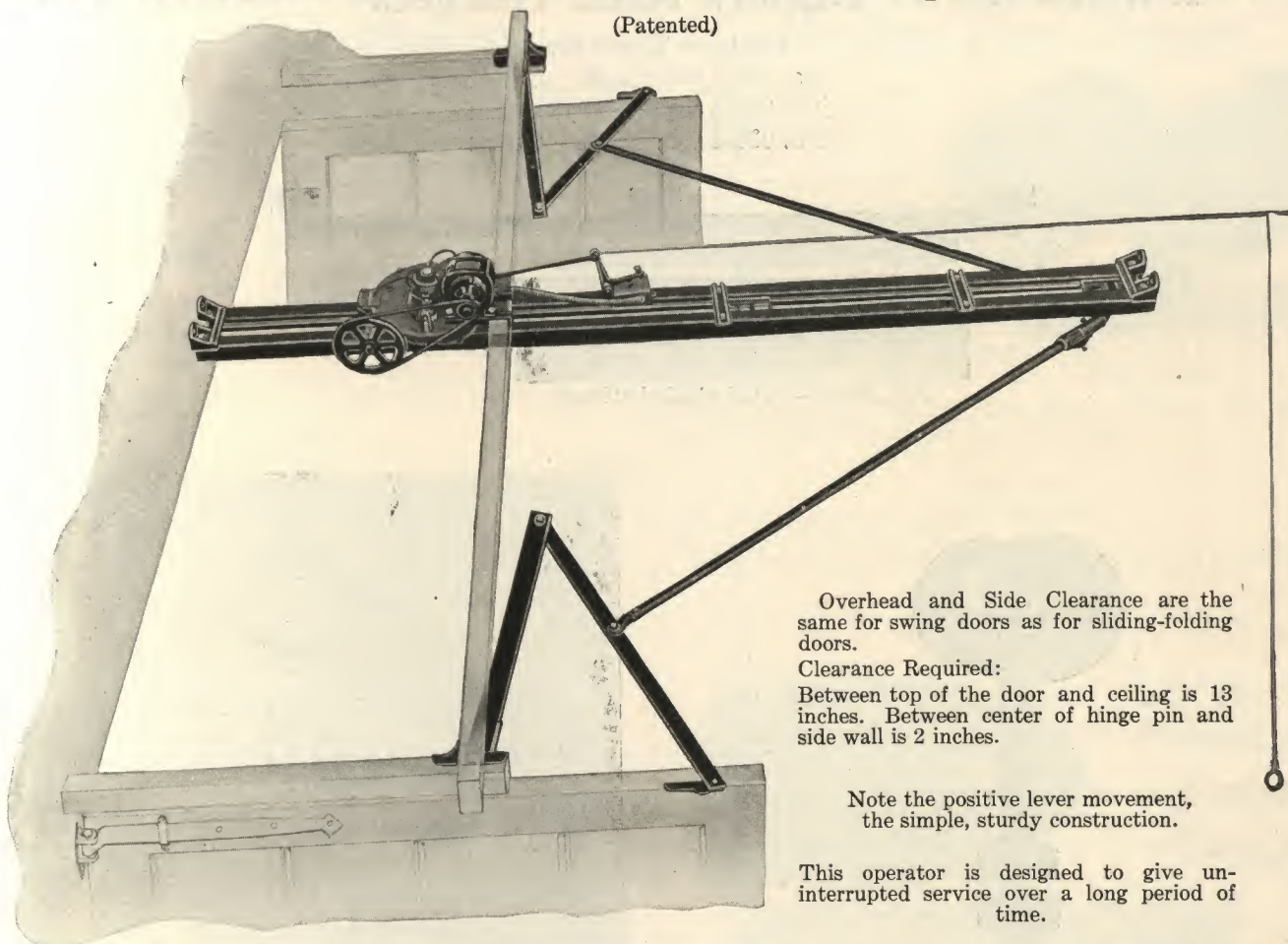
### For Municipal Doors

It is necessary that patrol wagons, ambulances and fire department apparatus make hasty exits. Due to the time consumed in closing the doors by hand it was necessary to leave a man behind for this purpose and to guard against petty stealing, plumbing freezing, etc. This is no longer necessary as the Aut-O-Dor will close the doors without stopping the trucks, when a drop cord is pulled as the trucks leave the room, and leave the doors locked until the crew returns.



## R-W No. 1200 Aut-O-Dor Electric Door Operator (Continued)

(Patented)



Overhead and Side Clearance are the same for swing doors as for sliding-folding doors.

Clearance Required:

Between top of the door and ceiling is 13 inches. Between center of hinge pin and side wall is 2 inches.

Note the positive lever movement, the simple, sturdy construction.

This operator is designed to give uninterrupted service over a long period of time.

### Simple, Positive, Reliable

The Aut-O-Dor opens and closes doors by a simple, positive, lever movement which eliminates all chains, cables and magnetic switch difficulties. It is simple in construction and substantially built. Once installed it requires practically no attention.

### Doors Open and Close Smoothly

As the doors are opened and closed by means of a crank, they start opening very gradually, becoming more rapid in the middle of the operation and stopping in a slow, easy manner without any sudden jerk or pull on the doors. This keeps the doors in good shape and will not break the glass by slamming.

Another great feature derived from the crank movement is that the mechanical advantage increases toward the end of the operation. This makes it possible to completely close the doors against a heavy wind without any strain whatsoever on the mechanism.

### Doors May Be Operated by Hand

Should the electric current be off the doors, may be operated by hand from the inside by merely pulling a release cord. The introduction of this feature means that at no time are your customers locked in or out.

### Method of Operation

The Aut-O-Dor consists merely of a motor, a set of reduction gears enclosed in a housing running in oil, a crank and a standard three-point switch mounted on top of the gear housing. One half revolution of the crank opens the doors and a second half revolution closes them. The motor applies power to the crank until the latter has made one half revolution, the current is then shut-off mechanically at the three-point switch mounted on the control unit. You can readily see that the Aut-O-Dor is a reliable and simple device.

It is made up almost entirely of standard units. A standard repulsion induction motor is used in driving the control, or in case that the current used is DC, the motor is a standard compound wound motor. The motor and reduction gears are the only fast moving parts of this control. All other parts move so slowly that they require practically no lubrication. The gear housing is filled with heavy transmission oil sufficient to supply lubrication for the reduction gears for at least one year at a time. The motor is ring oiled and likewise needs lubrication only about once a year. One thorough oiling is sufficient for an entire season. Then forget it. Every garage man can appreciate the minimum of necessary attention.

We have eliminated the use of all magnetic controls in connection with Aut-O-Dor Equipment.

### List Price.

No. 1200 Aut-O-Door Electric Door Operator, Weight, crated, 375 lbs. Complete.....\$450.00

Discount.....

### Control

It is not necessary to run electric conduit to the rear of the building in order to operate an Aut-O-Dor, throughout the length of the garage. By means of an especially designed switch mounting, the doors may be operated by a small overhead cable, which is regularly furnished. As many cords may be dropped from the cable as desired. Cords are usually hung the full length of the driveway, and floor men find it more convenient to operate the doors from pull cords than from wall switches. If desired, standard three and four-way switches can be secured from any electrician and used for operating the doors instead of the pull cords.

### Important

This equipment is recommended for openings up to 16 ft. wide (from center to center of hinge pins) and 16 ft. high.

Information concerning equipment for larger openings furnished upon request.

When Slidetite hardware is used, we recommend that hinges should be offset at least 6 inches from the edge of the jamb.

### Saves Its Cost in Coal

One example suffices. The Gem City Garage of Frankfort, Indiana, used approximately 80 tons of coal the year before installing the Aut-O-Dor. After installing Aut-O-Dor only 49 tons were used—a saving of 31 tons in one season.



R-W No. 030

## Display Rack Hangers

Ball-Bearing

Made in Three Sizes

No. 030-1 for No. 30 Track

No. 030-2 for No. 30½ Track

No. 030-3 for No. 31 Track

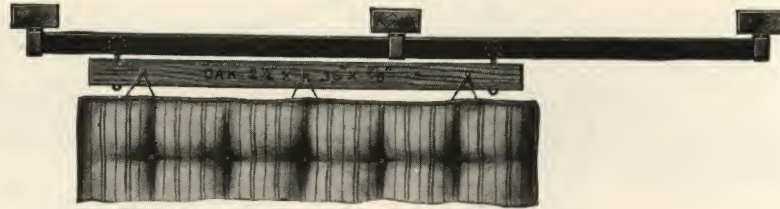


Fig. A-1769—Detail of Display Rack



Distance end of pendant to bottom of track, about 3 inches



Fig. A-1770—Display Rack using No. 030 Hangers

Designed especially for display racks, showing rugs, curtains, mattresses, screen and paneled doors, etc.

Track, No. 16 gauge steel, No. 30 type, for No. 030-1; No. 16 gauge steel, No. 30½ type for No. 030-2; No. 16 gauge steel, No. 31 type for No. 030-3. Wheels, metal,

for No. 030-1, 1½ inches; No. 030-2, 1¾ inches diameter. No. 030-3, 2⅛ inches in diameter. Bearings, steel balls. Fibre wheels only on special order. Finish, natural steel. Adjustment vertical. Weight, hangers, per pair: No. 030-1, 1 lb.; No. 030-2, 1⅛ lbs.; No. 030-3, 1¾ lbs. Track, per foot: No. 30, 1 lb.; No. 30½, 1½ lbs.; No. 31, 1.6 lbs.

### List Price

No. 030-1 Hangers, less brackets.	Per pair.....	\$2.50
No. 030-2 Hangers, less brackets.	Per pair.....	.250
No. 030-3 Hangers, less brackets.	Per pair.....	.250
No. 30 Track, black.	Per foot.....	.20
No. 30½ Track, black.	Per foot.....	.21
No. 31 Track, black.	Per foot.....	.25

Brackets to suit requirements. For prices, etc, see pages 194-195.

Note—Always specify brackets by number.

Discount.....



## R-W No. 30 Trolley Door Hanger



Distance top of door to bottom of track, 1 inch

Wheels, 1 lb.; metal wheels, 1½ lbs.; track, per foot, 1 lb.

### List Price

No. 30 Hangers, less brackets. Per pair.....\$2.10  
No. 30 Track. Per foot......20  
Brackets to suit requirements. For prices, etc., see pages 194-195.

Discount.....

## R-W No. 34 "Junior" Steel Door Hanger



No. 34-1



No. 34-2

Suitable for light doors of any description. For locker, china closet or cupboard doors. Made in two styles: No. 34-1 with offset pendant; No. 34-2 with straight pendant.

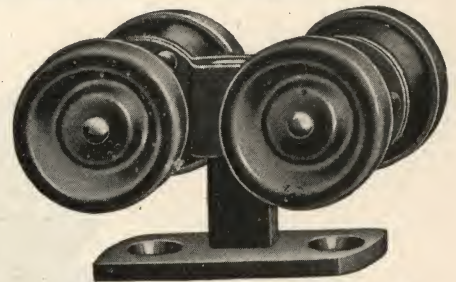
Track: for No. 34-1, ¾ inch V-shaped wrought brass, No. 34-1 type; for No. 34-2, ¼ inch half round wrought brass, No. 34-2 type. Wheels, grey iron, 1¾ inches diameter. Pendant, steel, 7 inches long, 1⅜ inches wide, ½ inch thick. Finish, bronze plated and flat black. Packed, one dozen pairs in a box. Weight: per dozen pairs, 12 lbs.; track, No. 1 or No. 2, per 100 feet, 10 lbs.

### List Price

No. 34-1 or 2 Hangers, bronze plated. Per pair.....\$1.35  
No. 34-1 or 2 Hangers, flat black. Per pair.....1.20  
No. 34-1 or 2 Brass Track. Per foot......25

Discount.....

## R-W No. 220 Trolley Door Hanger



Distance top of door to bottom of track, ¾ inch

For Light Sliding Closet, Cupboard and Wardrobe Doors. Track, No. 16 gauge steel, No. 31 type. Wheels metal, regular, 2⅞ inches diameter. Fibre wheels furnished only on special order. Bearing, steel balls. Finish, natural steel. Plate, 3 inches long, 1 inch wide. Weight: hangers, per pair, 1¾ lbs.; track, per foot, 1¾ lbs.

### List Price

No. 220 Hangers, less brackets. Per pair.....\$2.50  
No. 31 Track, black. Per foot......25  
Brackets to suit requirements. For prices etc., see pages 194-195.

Discount.....

## R-W No. 0030 "Bantam" Trolley Hanger



Distance top of door to bottom of track, ⅝ inch

For light sliding partitions, wall case doors, cupboards, bakery and milk wagon doors. Suitable for doors ⅞ to 1¼ inches thick.

Track, No. 16 gauge steel, No. 30 type. Wheels, metal, 1½ inches diameter, regular; fibre wheels only on special order. Bearings, steel balls. Finish, black enamel. Adjustment, lateral only. Weight: hangers, per pair, metal wheels, 1 lb.; fibre wheels, ½ lb.; track, per foot, 1 lb.

### List Price

No. 0030 Hangers, less brackets. Per pair.....\$2.00  
No. 30 Track. Per foot......20  
Brackets to suit requirements. For prices etc., see pages 194-195.  
Note—Always specify brackets by number.

Discount.....



## R-W No. 50 "Holdfast" Steel Barn Door Track



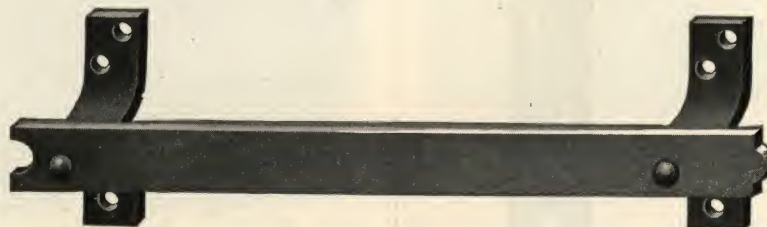
Track, steel,  $1\frac{1}{4}$  inches wide,  $\frac{3}{16}$  inch thick. Furnished in 4, 6, 8 and 10-foot lengths. Finish, black japan. This type of track is used with all styles of hinged hangers. Wired ten pieces in bundle. Weight, per 100 feet, 110 lbs.

### List Price

No. 50 Track. Per 100 feet.....\$10.00

Discount.....

## R-W No. 61, 62, 63, 64, 68 and 69 "Modern" Steel Barn Door Track



Furnished in 4, 6, 8 and 10-foot lengths. No. 63 is also furnished in 7-foot lengths. Finish, black japan. Wired ten pieces in bundle.

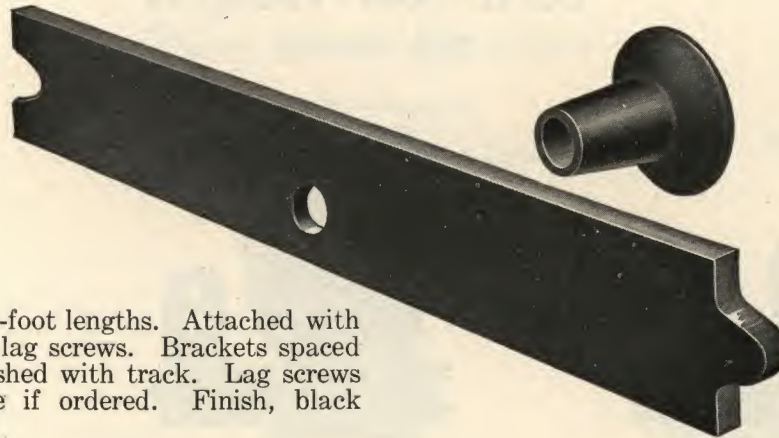
### List Price

	No. 61	No. 62	No. 63	No. 64	No. 68	No. 69
Weight lbs., per 100 feet.....	80	90	100	120	130	140
Dimensions in inches.....	$1 \times \frac{3}{8}$	$1\frac{1}{8} \times \frac{3}{16}$	$1\frac{1}{4} \times \frac{3}{16}$	$1\frac{1}{2} \times \frac{3}{16}$	$1\frac{1}{4} \times \frac{1}{4}$	$1\frac{1}{2} \times \frac{1}{4}$
Price, per 100 feet.....	\$8.00	\$8.25	\$9.25	\$10.50	\$11.00	\$12.00

Discount.....



## R-W No. 65 Light Cone Bracket Door Track Made in Seven Sizes



Furnished in 4, 6, 8 and 10-foot lengths. Attached with gray iron cone brackets and lag screws. Brackets spaced on 18-inch centers and furnished with track. Lag screws furnished at moderate price if ordered. Finish, black japan.

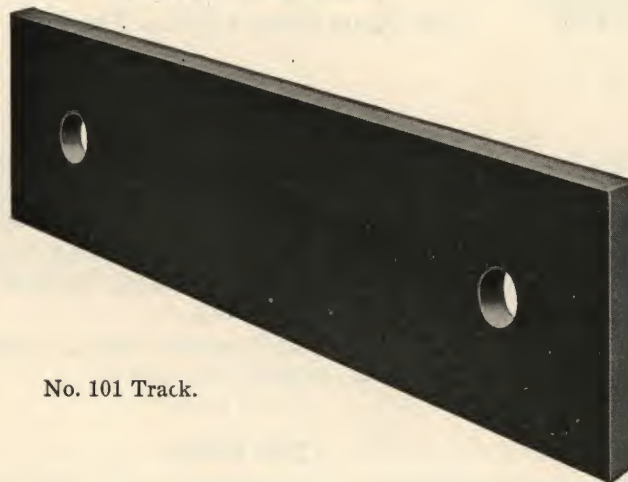
### List Price

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
Weight lbs., per 100 feet.....	90	103	114	135	166	195	220
Dimensions in inches.....	1 1/4 x 3/8	1 1/2 x 3/8	1 1/4 x 1/4	1 1/2 x 1/4	1 1/2 x 5/8	1 3/4 x 5/8	2 x 5/8
Price per 100 feet.....	\$7.80	\$8.40	\$8.40	\$9.50	\$13.00	\$14.50	\$15.50

Discount.....

## R-W No. 101 Cone Bracket Flat Bar Door Track Made in Three Sizes

Furnished in any length up to 16 feet. Attached with gray iron cone brackets spaced on 30-inch centers and furnished with track. Lag screws, expansion bolts or machine bolts furnished for attaching track at moderate price if ordered. Finish, black japan. Weight, per 100 feet with cone brackets, 3/8 x 2 1/2 inches, 370 lbs.; 3/8 x 3 inches, 435 lbs.; 3/8 x 3 1/2 inches, 500 lbs.



No. 101 Track.



No. 85 Cone Bracket  
Made in Three Sizes

### List Price

No. 101 Track, 3/8 x 2 1/2 inches with cone brackets.	Per foot.....	\$0.35
No. 101 Track, 3/8 x 3 inches with cone brackets.	Per foot.....	.40
No. 101 Track, 3/8 x 3 1/2 inches with cone brackets.	Per foot.....	.45
Extra No. 85-1 Cone Brackets, for 2-inch doors.	Each.....	.17
Extra No. 85-2 Cone Brackets, for 2 1/4 to 2 5/8-inch doors.	Each.....	.18
Extra No. 85-3 Cone Brackets, for 3-inch doors.	Each.....	.22

**Note**—When ordering state thickness of doors and width of track desired. Always specify by number.

Discount.....



**R-W No. 843**  
**"Aurora Jr."**

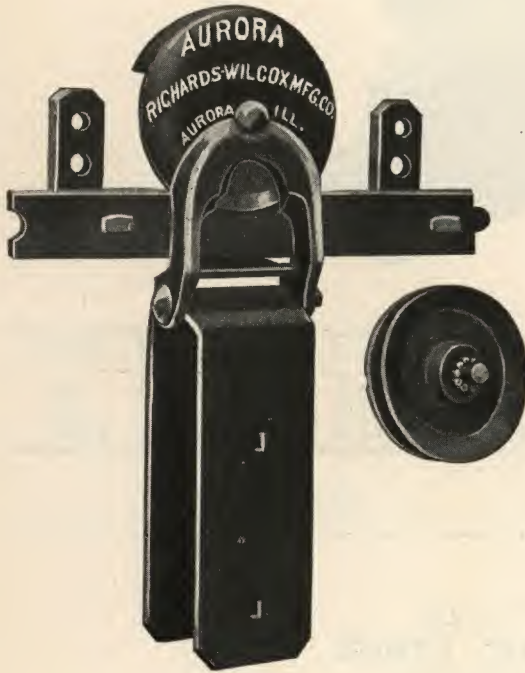
**R-W No. 1143**  
**"Aurora"**

**R-W No. 1043**

## Barn Door Hangers

Roller-Bearing

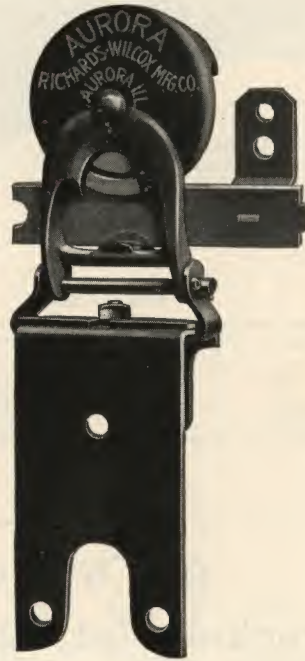
**Flexible Joint**



**No. 843**

**For Doors 1 $\frac{3}{4}$  to 2 Ins. Thick**

**Flexible Joint**



**No. 1143**

**For Doors 1 $\frac{3}{4}$  to 2 $\frac{1}{2}$  Ins. Thick**



**No. 1043**

**For Doors 1 $\frac{3}{4}$  to 2 $\frac{1}{2}$  Ins. Thick**

Track, 1 $\frac{1}{4}$  x  $\frac{3}{16}$  inch, furnished in 4, 6, 8 and 10-foot lengths, packed ten pieces in a bundle. Metal wheels. Packed one pair hangers with carriage bolts in metal-edged box, 12 pairs in a crate. Finish, black japan.

Nos. 843, 1143 Hangers have malleable iron hood to protect wheel from weather. Are flexible jointed. Aprons, hinged, punched for  $\frac{5}{16}$  inch bolts. No. 1143 Hangers, adjustment lateral only.

No. 1043 Hanger has all steel hood to protect wheel. Apron, hinged, punched for  $\frac{5}{16}$  inch bolts. Adjustment, lateral and vertical.

### List Price

Hanger No.	Track No.	Apron Size, Inches	Bearings	Diameter Wheels, Inches	Weight Per Pair Lbs.	List Price Per Pair
843	50	5x2 $\frac{1}{4}$ x $\frac{1}{8}$	Roller	3	7	\$1.35
1143	50	6x3 $\frac{1}{2}$ x $\frac{1}{8}$	Roller	3	8 $\frac{1}{3}$	1.35
1043	50	6x3 $\frac{1}{2}$ x $\frac{1}{8}$	Roller	3	6	1.60

No. 50 Track, (page 176), weight per 100 feet, 110 lbs. Per 100 feet.....\$10.00

*Discount*.....



**R-W No. 147**  
"Flex"

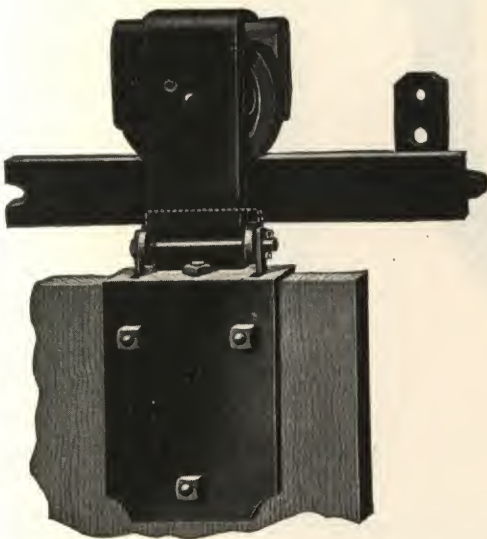
**R-W No. 247**  
"Ever-On"

## Barn Door Hangers

Roller-Bearing

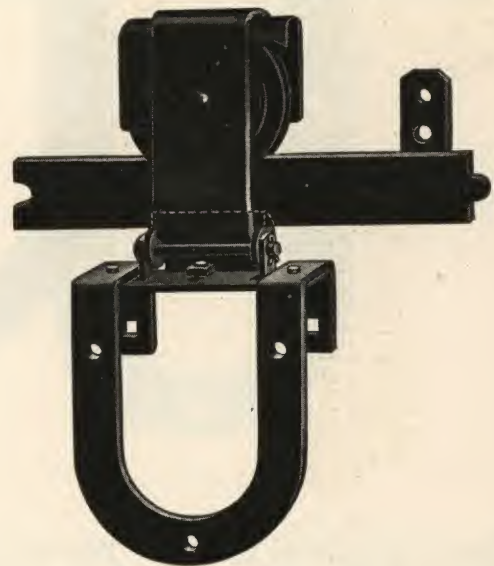
For Doors 1 $\frac{3}{4}$  Inches Thick

**Flexible Hinge**



Patented  
**No. 147**

**Adjustable Hinge**



Patented  
**No. 247**

Track, 1 $\frac{1}{4}$  x  $\frac{3}{16}$  inch furnished in 4, 6, 8 and 10-foot lengths. Metal wheels. Finish, black japan. Adjustment, lateral only. Flexible joint. Apron, steel, punched for  $\frac{5}{16}$  inch bolts. For doors 1 $\frac{3}{4}$  inches thick. Packed one pair hangers with carriage bolts in metal-edge box, 12 pairs in crate; track, ten pieces in bundle.

### List Price

Hanger No.	Track No.	Apron Size, Inches	Bearings	Diameter, Wheels	Weight Per Doz. Pair	List Price Per Pair
147	50	6x4x $\frac{1}{8}$	Roller	3 $\frac{1}{2}$ inches	110 lbs.	\$1.35
247	50	6 $\frac{1}{2}$ x1x $\frac{1}{8}$	Roller	3 $\frac{1}{2}$ inches	100 lbs.	1.35

No. 50 Track, (page 176), weight per 100 feet, 110 lbs. Per 100 feet .....\$10.00

Discount.....

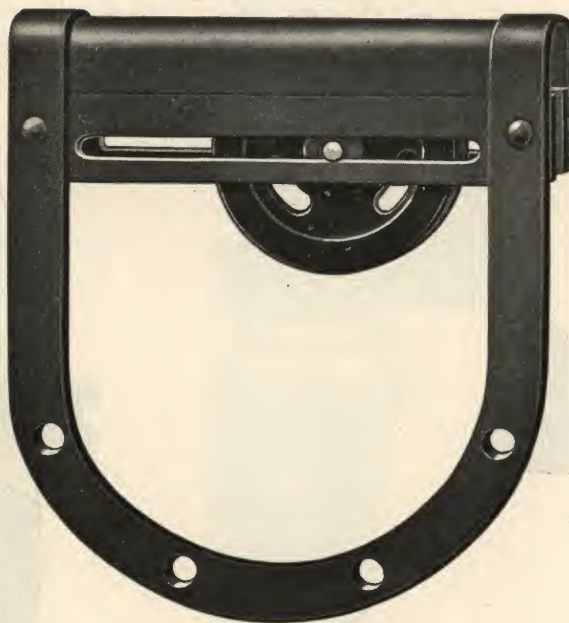


R-W No. 42

## "Erie" Anti-Friction Barn Door Hangers

With Traveling Wheel

Made in Four Sizes—For Doors 1 $\frac{3}{4}$  Inches Thick



No. 42

Wheels in all sizes are grey iron. Bearings, anti-friction, loose axle. Pendants, steel, with hood to protect wheel from weather. Finish, black japan. Hangers packed one

dozen pairs in crate, except No. 6, one-half dozen pairs in crate. Track, ten pieces in bundle.

Hanger No.	Pendant, Inches	Diameter Wheels, Inches	Track		Weight	
			No.	Sizes, Inches	1 Doz. Pair Hangers	Track 100 Feet
42-3	11x1x $\frac{3}{16}$	3 $\frac{1}{4}$	61	1x $\frac{3}{16}$	95 lbs	80 lbs.
42-4	12x1x $\frac{1}{4}$	4	63	1 $\frac{1}{4}$ x $\frac{3}{16}$	140 lbs.	100 lbs.
42-5	14x1 $\frac{1}{4}$ x $\frac{1}{4}$	5	68	1 $\frac{1}{4}$ x $\frac{1}{4}$	175 lbs.	130 lbs.
42-6	15 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{5}{16}$	6	69	1 $\frac{1}{2}$ x $\frac{1}{4}$	320 lbs.	140 lbs.

### List Price

No. 42-3 Hangers.	Per pair.....	\$ 1.25
No. 42-4 Hangers.	Per pair.....	1.50
No. 42-5 Hangers.	Per pair.....	2.10
No. 42-6 Hangers.	Per pair.....	3.00
No. 61 Track, (Page 176) made in 4, 6, 8 and 10-foot lengths.	Per 100 ft.....	8.00
No. 63 Track, (Page 176) made in 4, 6, 8 and 10-foot lengths.	Per 100 ft.....	9.25
No. 68 Track, (Page 176) made in 4, 6, 8 and 10-foot lengths.	Per 100 ft.....	11.00
No. 69 Track, (Page 176) made in 4, 6, 8 and 10-foot lengths.	Per 100 ft.....	12.00

Discount.....



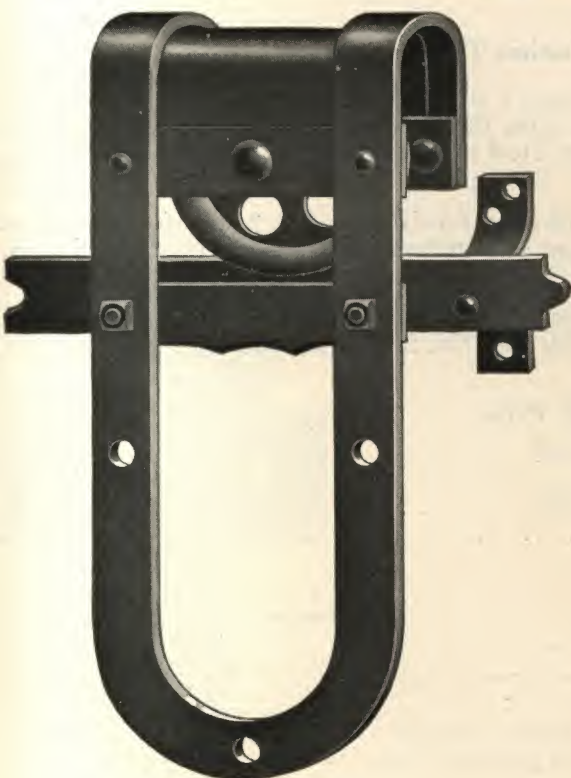
R-W No. 38

R-W No. 41

## "World" Barn Door Hangers

Roller-Bearings

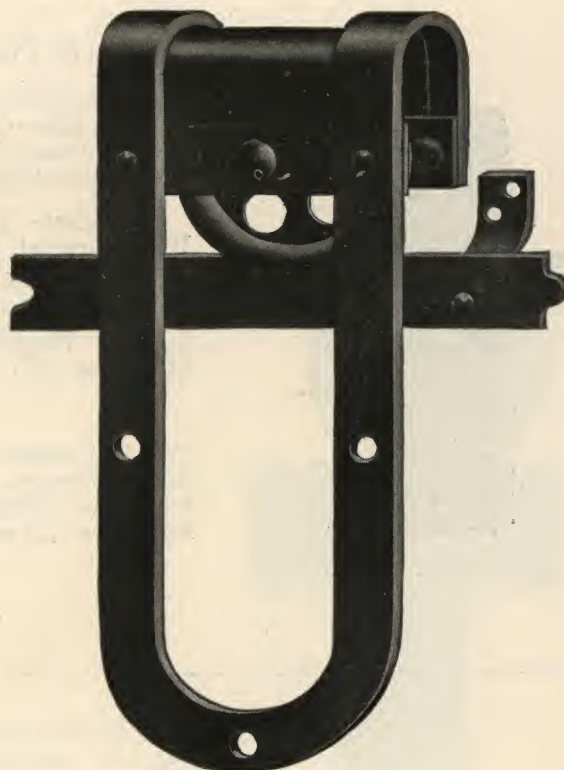
Made in Three Sizes—For Doors 1 $\frac{3}{4}$  Inches Thick



No. 38



No. 38



No. 41

Metal wheels, in all sizes. Bearings, steel rollers. Pendants steel, with hood to protect wheel from weather. No. 38 hangers have adjustable limit stop, which permits use of track 1 to 1 $\frac{1}{4}$  inches wide and also prevents hanger

from jumping off of track. No. 41 can be used on any width of flat track. Finish, black japan. Hangers packed one dozen pairs in crate; track, ten pieces in bundle.

Hanger No.	Pendants, Inches	Diameter Wheels, Inches	Track		Weight	
			No.	Size, Inches	1 Doz. Pair Hangers	Track 100 Feet
38-1	12x1x $\frac{3}{16}$	3 $\frac{1}{4}$	61	1x $\frac{3}{16}$	85 lbs.	80 lbs.
38-2	13x1x $\frac{1}{4}$	4	63	1 $\frac{1}{4}$ x $\frac{3}{16}$	110 lbs.	100 lbs.
38-3	14x1 $\frac{1}{4}$ x $\frac{1}{4}$	5	68	1 $\frac{1}{4}$ x $\frac{1}{4}$	145 lbs.	130 lbs.
41-0	10 $\frac{3}{4}$ x1x $\frac{3}{16}$	3 $\frac{1}{4}$	61	1x $\frac{3}{16}$	75 lbs.	80 lbs.
41-1	12x1x $\frac{3}{16}$	3 $\frac{1}{4}$	61	1x $\frac{3}{16}$	85 lbs.	80 lbs.
41-2	13x1x $\frac{1}{4}$	4	63	1 $\frac{1}{4}$ x $\frac{3}{16}$	110 lbs.	100 lbs.
41-3	14x1 $\frac{1}{4}$ x $\frac{1}{4}$	5	68	1 $\frac{1}{4}$ x $\frac{1}{4}$	145 lbs.	130 lbs.

### List Price

No. 38-1 Hangers.	Per pair	.....	\$ 1.25
No. 38-2 Hangers.	Per pair	.....	1.50
No. 38-3 Hangers.	Per pair	.....	1.85
No. 41-0 Hangers.	Per pair	.....	1.05
No. 41-1 Hangers.	Per pair	.....	1.25
No. 41-2 Hangers.	Per pair	.....	1.50
No. 41-3 Hangers.	Per pair	.....	1.85
No. 61 Track, (Page 176) made in 4, 6, 8 and 10-foot lengths.	Per 100 feet	.....	8.00
No. 63 Track, (Page 176) made in 4, 6, 8 and 10-foot lengths.	Per 100 feet	.....	9.25
No. 68 Track, (Page 176) made in 4, 6, 8 and 10-foot lengths.	Per 100 feet	.....	11.00

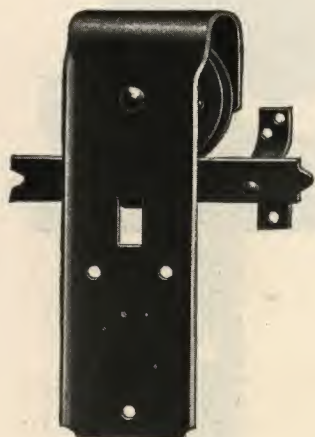
Discount.....



## R-W No. 37 "Ajax" Barn Door Hangers

Roller-Bearing

Made in Two Sizes—For Doors 1¾ Inches Thick



No. 37

No. 1 Size—Track, 1 x ¾ inch, No. 61 type, furnished in 4, 6, 8 and 10-foot lengths. Wheels, metal, 3 inches diameter. Bearings, steel rollers. Pendant, steel, 3½ x 1/8 inches, 10½ inches long.

No. 2 Size—Track, 1¼ x ¾ inches, No. 63 type, furnished in 4, 6, 8 and 10-foot lengths. Wheels, metal, 4 inches diameter. Bearings, steel rollers. Pendant, steel, 4 x 1/8 inches, 12 inches long.

Finish, black japan. Hangers packed one dozen pairs in crate; track, ten pieces in bundle. Weight: per dozen pairs, No. 1, 60 lbs.; No. 2, 92 lbs.; track, per 100 feet, No. 61, 80 lbs.; No. 63, 100 lbs.

### List Price

No. 37-1 Hangers. Per pair.....	\$1.25
No. 37-2 Hangers. Per pair.....	1.50
No. 61 Track, (Page 176). Per 100 feet.....	8.00
No. 63 Track, (Page 176). Per 100 feet.....	9.25

Discount.....

## R-W No. 43 "Ezy" Barn Door Hangers

Roller-Bearing

Made in Two Sizes—For Doors 1¾ Inches Thick

No. 1 Size—Track, 1 x ¾ inch, No. 61 type, furnished in 4, 6, 8 and 10-foot lengths, metal wheels, 3¼ inches diameter. Bearings, steel rollers. Pendant, steel, 1½ x ¾ inches, 12 inches long.

No. 2 Size—Track, 1¼ x ¾ inches, No. 63 type furnished in 4, 6, 8 and 10-foot lengths, 3¼ inches diameter. Bearing, steel rollers. Pendants, steel, 2 x ¾ inches, 15 inches long.

Finish, black japan. Hangers packed one dozen pairs in crate; track, ten pieces in bundle. Weight: per dozen pairs, No. 1, 50 lbs.; No. 2, 75 lbs.; track, per 100 feet, No. 61, 80 lbs.; No. 63, 100 lbs.

### List Price

No. 43-1 Hangers. Per pair.....	\$1.00
No. 43-2 Hangers. Per pair.....	1.20
No. 61 Track, (Page 176). Per 100 feet.....	8.00
No. 63 Track, (Page 176). Per 100 feet.....	9.25

Discount.....



No. 43



## R-W No. 101 "Safety" Warehouse and Pier Door Hangers Roller-Bearings

Made in Three Sizes—For Doors 2 to 3 Inches Thick



No. 101-1,-3

Designed Especially  
for  
Heavy Warehouse Doors,  
Stable Doors and Gates

Track,  $\frac{3}{8}$  inch steel, in three widths, and furnished with grey iron cone brackets spaced on 30-inch centers. Wheels in all sizes are grey iron. Bearings, steel rollers. Pendants, steel. Extra heavy. Finish, black japan. Hangers, packed three pairs in crate.



No. 101-2

Hanger No.	Pendants, Inches	Diameter Wheels, Inches	Track No.	Weight Hangers per Pair, Pounds
101-1	$3\frac{1}{2} \times \frac{1}{4} \times 20$	$4\frac{1}{2}$	101 as specified	16
101-2	$3\frac{1}{2} \times \frac{3}{8} \times 22$	$6\frac{1}{4}$	101 as specified	30
101-3	$3\frac{1}{2} \times \frac{5}{8} \times 22$	5	101 as specified	28

### List Price

No. 101-1 Hangers.	Per pair	\$4.00
No. 101-2 Hangers.	Per pair	4.50
No. 101-3 Hangers.	Per pair	4.50
No. 101 Track, $\frac{3}{8} \times 2\frac{1}{2}$ inches with cone brackets, (Page 177).	Per foot	.35
No. 101 Track, $\frac{3}{8} \times 3$ inches with cone brackets, (Page 177).	Per foot	.40
No. 101 Track, $\frac{3}{8} \times 3\frac{1}{2}$ inches with cone brackets, (Page 177).	Per foot	.45
Extra No. 85-1 Cone Brackets for 2-inch doors, (Page 177).	Each	.17
Extra No. 85-2 Cone Brackets for $2\frac{1}{4}$ to $2\frac{5}{8}$ -inch doors, (Page 177).	Each	.18
Extra No. 85-3 Cone Brackets for 3-inch doors, (Page 177).	Each	.22

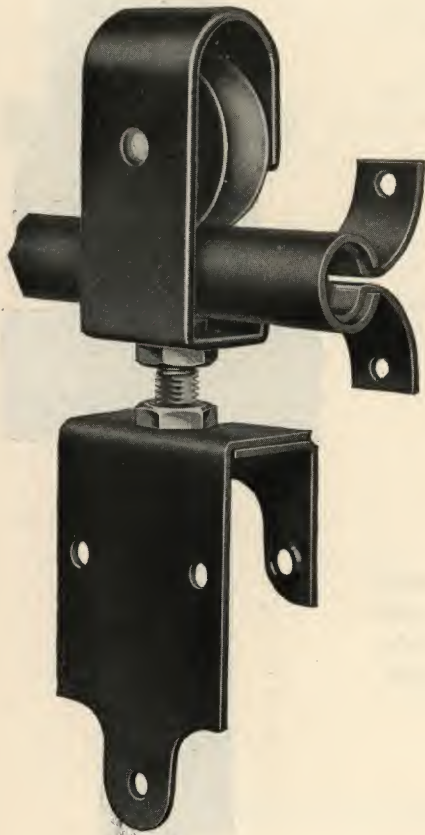
Discount.....

Note—When ordering state thickness of doors and width of track desired. Always specify by number.



## R-W No. 362 Round Track Barn Door Hanger

Roller-Bearing  
For Doors  $1\frac{3}{4}$  to  $2\frac{1}{2}$  Inches Thick.

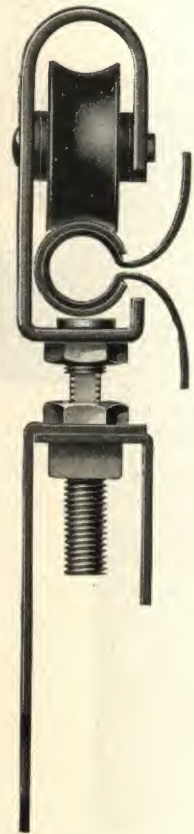


No. 362

For Full Size  
Cross-Section,  
of Track  
No. 242B  
See page 186

Distance top of  
door to center of  
track; Minimum,  $2\frac{3}{4}$ "  
Maximum,  $3\frac{1}{4}$ "

Clearance above  
center of track,  
 $3\frac{3}{4}$  inches



Wheel, grey iron, machined tread,  $2\frac{1}{2}$  inches diameter. Hood, steel, protects wheel. Bearings, steel rollers. Finish, black enamel. Adjustment, lateral and vertical. Apron, 6 inches long,  $3\frac{1}{2}$  inches wide,  $\frac{1}{8}$  inch thick. For doors  $1\frac{3}{4}$  to  $2\frac{1}{2}$  inches thick. Packed one pair of hangers with

carriage and stove bolts, one track connection and two end track brackets in metal-edged box; one dozen pairs in a crate; track in bundles. Weight: hangers, per pair,  $8\frac{1}{4}$  lbs.; track, per 100 feet, 90 lbs.

### List Price

No. 362 Hangers. Per pair.....	\$ 2.25
No. 242B Track (page 189), in 4, 6, 8 and 10 foot lengths, (10 pieces to bundle), with moveable steel brackets. Per 100 feet.....	15.50

**Note**—When ordering always state number of pieces and lengths of track.

**Discount**.....

**Brackets should be spaced not to exceed 24-inch centers**



R-W No. 342

## Light Fire Door or Warehouse Door Hanger

Roller-Bearing  
For Doors 2 to 2 $\frac{5}{8}$  Inches Thick.



Distance top of door to center of track 1 $\frac{3}{4}$  inches.

Center of track to bolt hole; 1 $\frac{1}{4}$  inches for doors 2 or 2 $\frac{1}{4}$  inches thick; 1 $\frac{3}{4}$  inches for doors 2 $\frac{1}{2}$  to 2 $\frac{5}{8}$  inches thick.

Clearance above center of track, 5 $\frac{1}{4}$  inches

Wheel, grey iron, lathe turned, 3 $\frac{1}{2}$  inches diameter. Bearings, steel rollers. Frame, steel, 3 $\frac{1}{2}$  inches wide,  $\frac{1}{4}$  inch thick, 16 inches long over all. Limit stud prevents hanger from jumping the track and derailing the door. Finish, black enamel. For doors from 2 to 2 $\frac{5}{8}$  inches thick. Track and Brackets, full size cross-section of No. 542-C track and No. 542-C brackets are shown on page 229. Weight of track with brackets, 2 $\frac{1}{4}$  lbs. per foot. Weight of hangers, per pair, 25 lbs.

### List Price

No. 342 Hangers. Per pair.....\$ 4.00  
No. 542-C Track, (page 189), in 4, 6, 8 and 10 foot lengths, (10 pieces to bundle), with moveable malleable brackets. Per 100 foot..... 41.00

Discount.....

**Note**—When ordering state thickness of doors, width of opening, number of pieces and lengths of track desired.

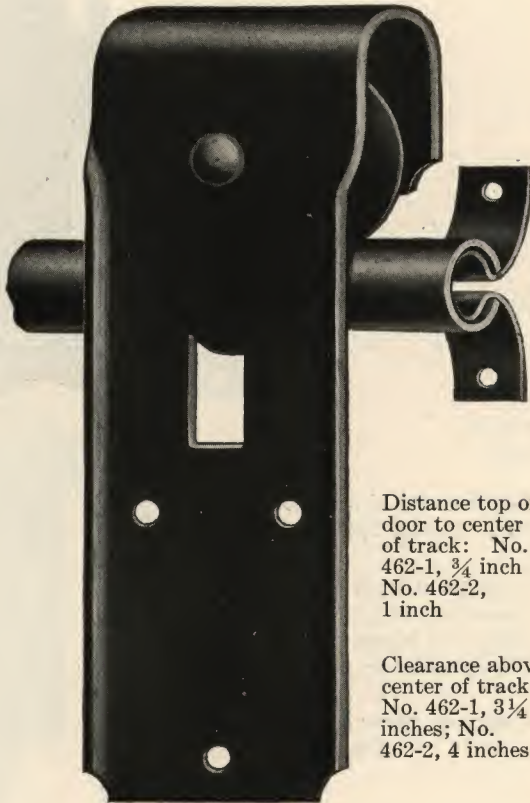
*Brackets should be spaced not to exceed 24-inch centers.*



## R-W No. 462 "Reo" Barn Door Hangers

Made in Two Sizes

Roller-Bearing



Distance top of door to center of track: No. 462-1,  $\frac{3}{4}$  inch  
No. 462-2, 1 inch

Clearance above center of track: No. 462-1,  $3\frac{1}{4}$  inches; No. 462-2, 4 inches.

Round Track

242 A

Full Size Cross-Section of No. 242-A Round Track.

242 B

Full Size Cross-Section of No. 242-B Round Track

Wheels, gray iron, machined tread. Pendants, steel. Bearings, steel rollers. Finish, black enamel. Limit guide prevents binding or derailment of door. No. 462-1 for doors up to  $1\frac{3}{4}$  inches thick; No. 462-2 for doors  $1\frac{3}{4}$  to 2 inches thick. Packed one pair of hangers with carriage bolts and one track connection in metal-edge box; one dozen pairs in crate; track in bundles. Weight, track, per 100 feet, with brackets: No. 242-A, 68 lbs.; No. 242-B, 90 lbs.

### List Price

Hanger No.	Track No.	Dimensions of Pendant	Diameter Wheels	Weight per Dozen Pair	Price Per Pair
462-1	242-A	$9\frac{1}{2} \times 3 \times \frac{1}{8}$	$2\frac{1}{4}$ inches	60 lbs.	\$1.00
462-2	242-B	$10\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$	$2\frac{1}{2}$ inches	85 lbs.	1.35

No. 242-A Track, (Page 189), in 4, 6, 8 and 10-foot lengths, (10 pieces to bundle), with movable steel brackets. Per 100 feet.....\$13.00  
No. 242-B Track, (Page 189), in 4, 6, 8 and 10-foot lengths, (10 pieces to bundle), with movable steel brackets. Per 100 feet..... 15.50

**Note**—When ordering always state number of pieces and lengths of track.

Discount.....



R-W No. 543

## "Red Runner" Barn Door Hanger

Roller-Bearing

For Doors  $1\frac{3}{4}$  to  $2\frac{1}{2}$  Inches Thick



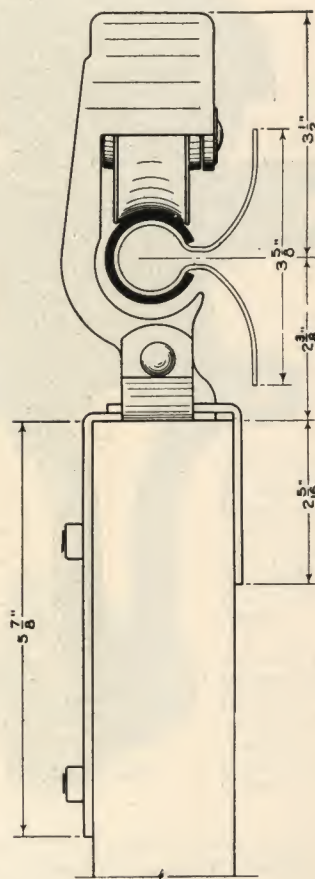
No. 543

Distance top of door to center of track,  $2\frac{3}{8}$  inches.

Clearance above center of track,  $3\frac{3}{4}$  inches.

Patented

For Full Size Cross-Section Of No. 242B Track See Page 186



Wheel, grey iron, machined tread,  $2\frac{1}{2}$  inches diameter. Hood, malleable iron, protects wheel from weather. Bearings, steel rollers. Finish, black enamel with wheel finished in red. Adjustment, lateral only. Flexible joint. Apron milled, 6 inches long,  $3\frac{1}{2}$  inches wide,  $\frac{1}{8}$  inch thick. For

doors  $1\frac{3}{4}$  to  $2\frac{1}{2}$  inches thick. Packed one pair of hangers with carriage and stove bolts, two end brackets, and one track connection in metal-edge box; one dozen pairs in crate; track in bundles. Weight: hangers, per dozen pairs, 115 lbs.; track, per 100 feet, 90 lbs.

### List Price

No. 543 Hangers. Per pair.....\$ 2.00  
No. 242-B Track (Page 189), in 4, 6, 8 and 10-foot lengths, (10 pieces to bundle), with movable steel brackets. Per 100 feet..... 15.50

Discount.....

Note—When ordering always state number of pieces and lengths of track.



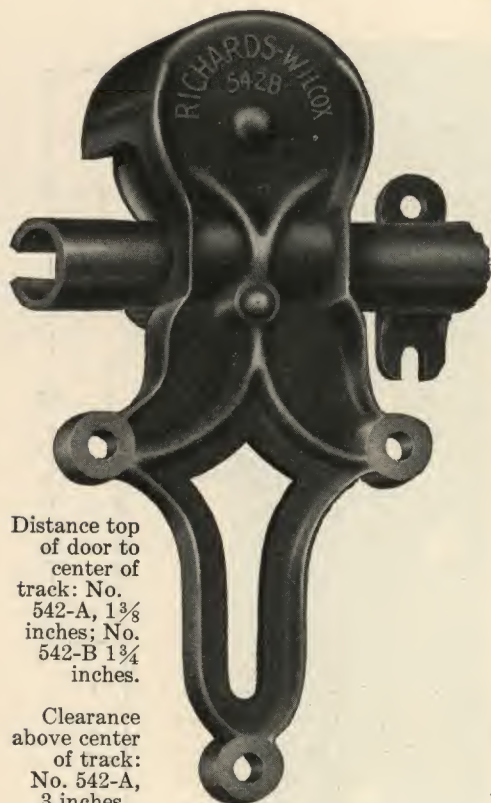
R-W No. 542-A and 542-B

"Nobalk"

## Barn Door Hangers and Track

Hangers and Track Made in Two Sizes

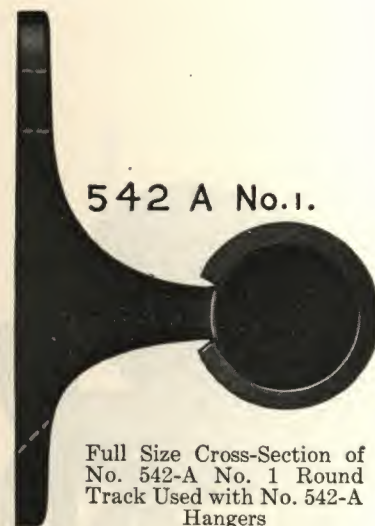
Roller-Bearing Hangers



No. 542

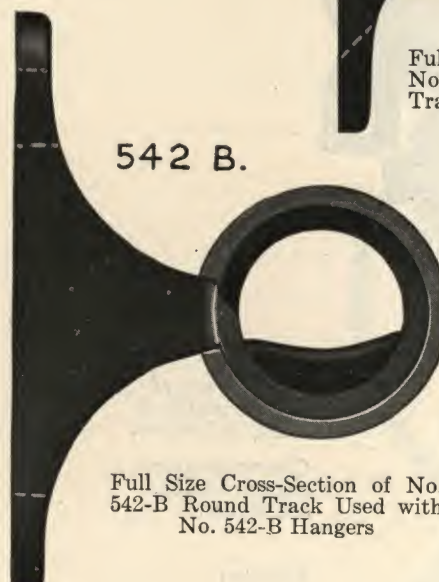
Distance top of door to center of track: No. 542-A,  $1\frac{3}{4}$  inches; No. 542-B  $1\frac{1}{4}$  inches.

Clearance above center of track: No. 542-A, 3 inches; No. 542-B  $3\frac{1}{4}$  inches.



542 A No.1.

Full Size Cross-Section of No. 542-A No. 1 Round Track Used with No. 542-A Hangers



542 B.

Full Size Cross-Section of No. 542-B Round Track Used with No. 542-B Hangers

Wheels, gray iron, machined tread. Frame, malleable iron, ribbed back. Bearings, steel rollers. Finish, black enamel. Limit lug prevents binding or derailment of door. No. 542-A for doors up to  $1\frac{3}{4}$  inches thick; No. 542-B

for doors  $1\frac{3}{4}$  to 2 inches thick. Packed one pair of hangers with carriage bolts, one center and two end brackets in metal-edge box; one dozen pairs in crate; track in bundles; extra brackets in bulk.

No. 542-C Hanger for heavy warehouse doors is shown on page 228.

### No. 542 HANGERS (Rigid Type)

Hanger No.	Dimensions	Diameter Wheels	Weight per Dozen Pair	List Price
542-A	$9\frac{1}{2}$ inches long, 4 inches wide	$2\frac{1}{4}$ inches	75 lbs.	Per pair . . . . . \$1.70
542-B	12 inches long, $5\frac{1}{2}$ inches wide	$2\frac{1}{2}$ inches	110 lbs.	Per pair . . . . . 2.00

### TRACK

Track No.	Diameter	Weight per 100 feet with Brackets, 2-foot Centers	List Price per 100 feet with Brackets
542-A-No. 1 (page 189)	$\frac{7}{8}$ inch	75 lbs.	\$13.00
542-B (page 189)	$1\frac{5}{16}$ inches	100 lbs.	16.00

Track furnished in 4, 6, 8 and 10-foot lengths, (10 pieces to bundle.)

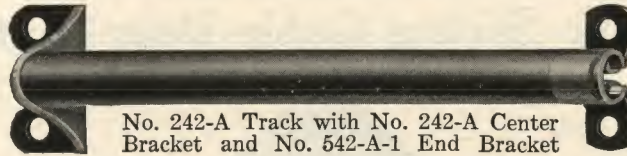
Note—When ordering always state number of pieces and lengths of track desired.

Discount.....

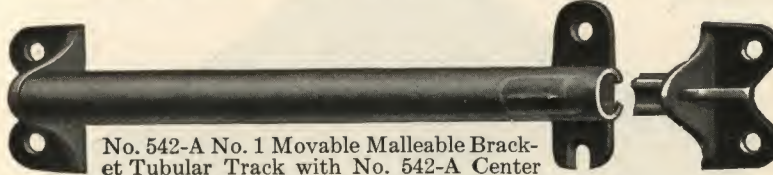
*Brackets should be spaced not to exceed 24-inch centers*



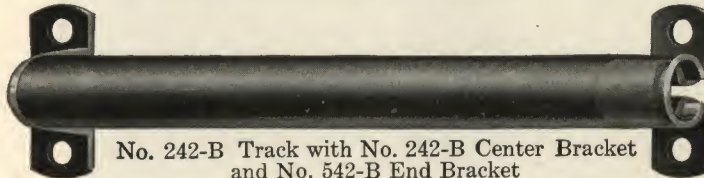
## R-W Round Tracks and Brackets



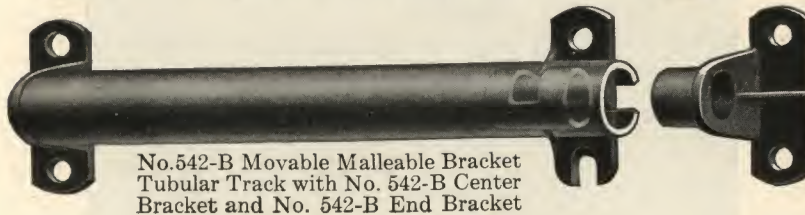
No. 242-A Track with No. 242-A Center Bracket and No. 542-A-1 End Bracket



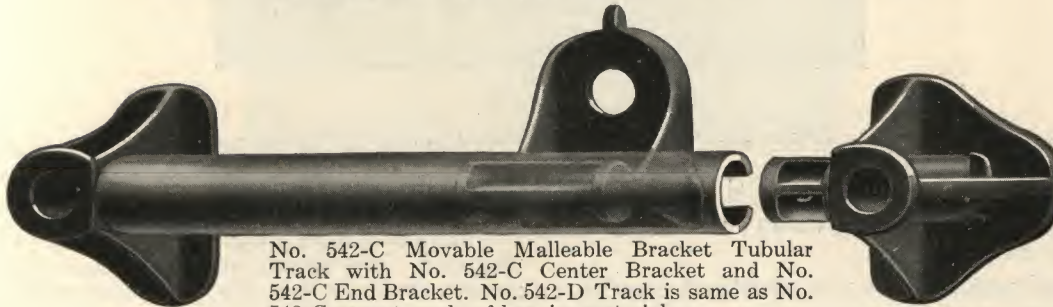
No. 542-A No. 1 Movable Malleable Bracket Tubular Track with No. 542-A Center Bracket and No. 542-A End Bracket



No. 242-B Track with No. 242-B Center Bracket and No. 542-B End Bracket



No. 542-B Movable Malleable Bracket Tubular Track with No. 542-B Center Bracket and No. 542-B End Bracket



No. 542-C Movable Malleable Bracket Tubular Track with No. 542-C Center Bracket and No. 542-C End Bracket. No. 542-D Track is same as No. 542-C except made of heavier material

### Track

Track No.	Gauge Steel	Outside Diameter Inches	Standard Lengths Feet	Pieces to Bundle	Weights per 100 ft. with Brackets, Lbs.	List Price Per 100 Feet with Brackets
242-A	14	$\frac{7}{8}$	4-6-8-10	10	68	\$13.00
242-B	14	$1\frac{5}{16}$	4-6-8-10	10	90	15.50
542-A-No. 1	14	$\frac{7}{8}$	4-6-8-10	10	75	13.00
542-B	14	$1\frac{5}{16}$	4-6-8-10	10	100	16.00
542-C	10	$1\frac{7}{16}$	4-6-8-10	10	225	41.00
542-D	$\frac{3}{16}$	$1\frac{9}{16}$	4-6-8-10	10	281	60.00

### Brackets

*No. 242-A	Center Brackets, less screws.	Each	.....	\$0.04
†No. 242-B	Center Brackets, less screws.	Each	.....	.05
No. 542-A	No. 1 Center Brackets, less screws.	Each	.....	.05
No. 542-A	No. 1 End Brackets, less screws.	Each	.....	.06
No. 542-B	Center Brackets, less screws.	Each	.....	.06
No. 542-B	End Brackets, less screws.	Each	.....	.06
No. 542-C	Center Brackets, less bolts.	Each	.....	.20
No. 542-C	End Brackets, less bolts.	Each	.....	.32
No. 542-C-1	Joint Brackets, less screws and bolts.	Each	.....	.32
No. 542-C-2	Joint Brackets, less screws and bolts.	Each	.....	.32

### Discount

**Note**—When ordering state length and number of pieces required. No. 542-C track is always furnished for  $2\frac{5}{8}$ -inch doors unless otherwise specified.

\*Use No. 542-A-1 End Brackets with No. 242-A Center Brackets.

†Use No. 542-B End Brackets with No. 242-B Center Brackets.

‡Use No. 542-C End and Center Brackets with No. 542-D Track.

**Brackets should be spaced not to exceed 24-inch centers.**



## R-W No. 278 Double Sliding Gable Door Fixture

Fixture designed especially to meet the demand for easy operating gable doors.

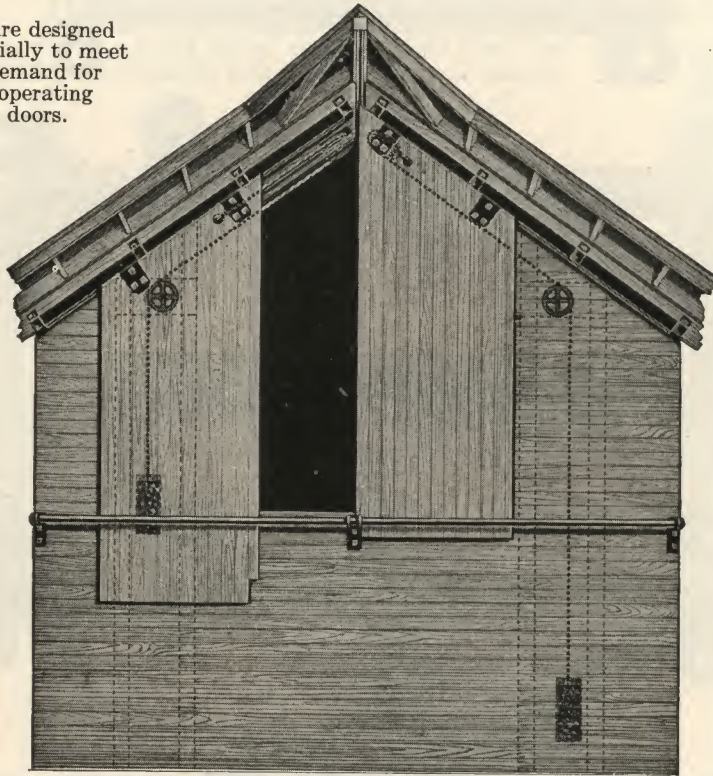


Fig. A-1771

Illustration shows the manner in which our No. 20 Gem Roller-Bearing Trolley Hangers (page 212), using No. 31 track (page 193) with No. 1 x 31 and No. 2 x 31 brackets (page 194), operate double sliding doors in the gable of barns used for hay lofts, etc.

Track is mounted parallel with roof and the hangers are attached in the same manner as on any barn door. Each door is counter-balanced by weights attached to a steel cable, which passes over two cable pulleys located above each door. Doors can be lowered or raised easily, permit-

ting the use of the entire or part of the opening as desired. Steel guide holds bottom of doors against building when closed and also acts as guide and stop when open.

Counter-balance weights can be made of any convenient material. We recommend concrete weighs as these can always be made on the job. Concrete weighs 137 lbs. to the cubic foot. Where 2 x 6-inch studding is used, weights should be 8 inches wide, 5 inches thick and height according to weight of door.

### List Price

No. 278 Fixtures only, less hangers, track and track brackets. Per set.....\$6.15

QUANTITIES REQUIRED FOR OPENINGS OF FOLLOWING WIDTHS						LIST PRICE OF PARTS	
5 Foot	6 Foot	7 Foot	8 Foot	9 Foot	10 Foot	Description	Price
2 Pr.	2 Pr.	2 Pr.	2 Pr.	2 Pr.	2 Pr.	No. 20 hangers only, with bolts, per pair.....	\$1.85
12 Ft.	14 Ft.	16 Ft.	18 Ft.	20 Ft.	22 Ft.	No. 31 track, per foot.....	.25
2	4	4	6	6	7	No. 1x31 center bracket, with lag screw, each.....	.21
4	4	4	4	4	4	No. 2x31 end bracket, with lag screw, each.....	.21
4	4	4	4	4	4	No. 278-A cable pulley, 4-in. diam. with screws, each.....	.50
11 Ft.	13 Ft.	15 Ft.	17 Ft.	19 Ft.	21 Ft.	No. 278-B round steel guide, per foot.....	.15
25 Ft.	28 Ft.	31 Ft.	34 Ft.	37 Ft.	40 Ft.	No. 278-CA steel cable, per foot.....	.10
1	1	1	1	1	1	No. 278-D center bracket, with screws (for guide), each.....	.40
2	2	2	2	2	2	No. 278-E end bracket, with screws (for guide), each.....	.40
COMPLETE PER SET (LESS WEIGHTS)						Discount.....	
\$15.75	\$16.00	\$17.70	\$18.50	\$19.70	\$20.70		

**Note**—Unless otherwise specified, fixtures complete will be sent. Always specify by number and state size of opening. Prices on galvanized fixtures quoted on application.

*Brackets should be spaced not to exceed 30-inch centers*



## R-W No. 279 Vertical Sliding Gable Door Fixture

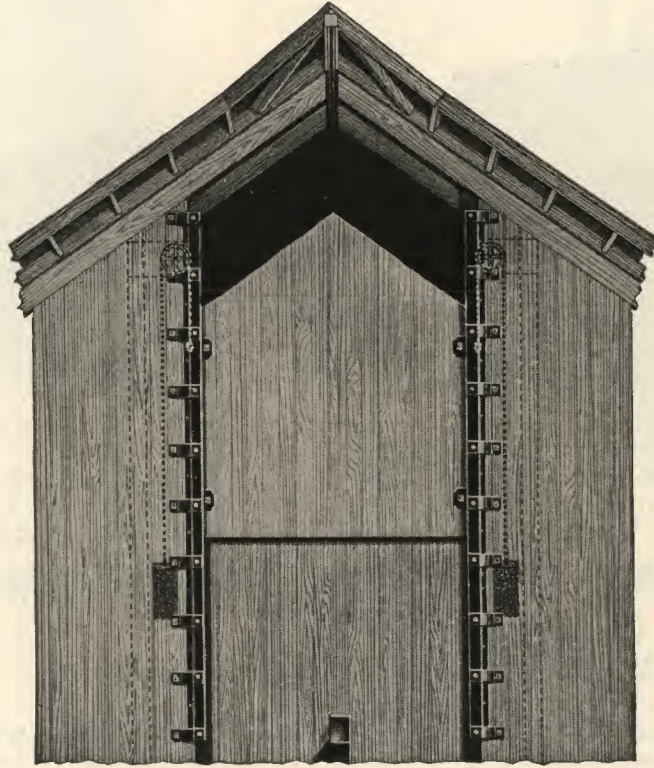


Fig. A-1772

This fixture is designed to meet the demand for a cheaper outfit than illustrated on opposite page and is used only with vertical sliding door as shown above.

The guides operate in a steel track with brackets attached on 24-inch centers. This track completely covers the guides and protects them from the weather. To determine length of track, add the height of door at side to the height at center. Track is made in 6, 8 and 10- foot lengths.

Door is counter-balanced by weights attached to a steel

cable which passes over two cable pulleys, located above door. Door can be lowered or raised easily, permitting the use of the entire or part of the opening as desired.

Counter-balance weights can be made of any convenient material. We recommend concrete weights, as they can always be made on the job. Concrete weighs 137 lbs. to the cubic foot. Where 2 x6-inch studding is used, weights should be 8 inches wide, 5 inches thick and height according to weight of door.

### List Price

No. 279 Fixtures only, less track. Per set.....	\$9.00
No. 278-CA Steel Cable, (40 feet per set). Per foot.....	.10
No. 279-TK Track, (with brackets attached), with screws, (2 runs according to height of door). Per foot.....	.30
No. 279-A Cable Pulley, 8 inches diameter, with bolts, (2 per set). Each.....	1.50
No. 279-B Guides with bolts, (4 per set). Each.....	.45

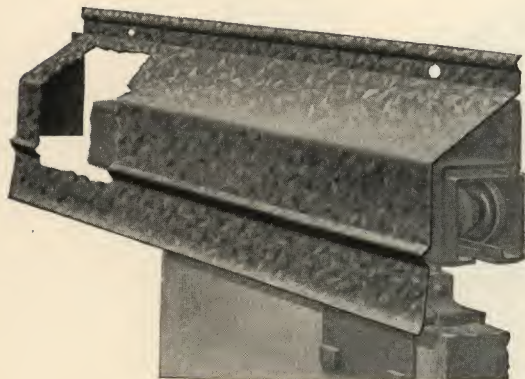
Discount.....

**Note**—Unless otherwise specified, fixtures complete will be sent. Always specify by number and state height of door at side and also at center.

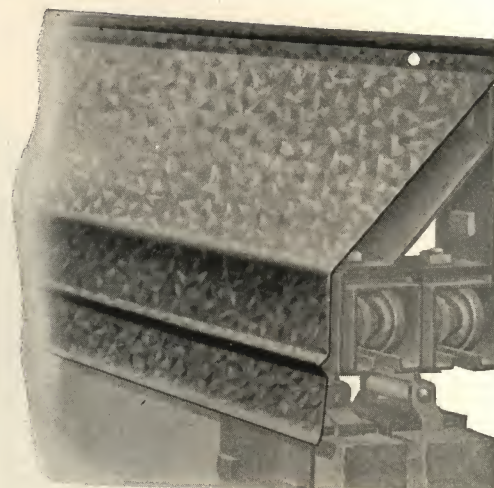
Prices on galvanized fixtures quoted on application.



## R-W No. 296 Galvanized Housing



Housing for Single Track



Housing for Parallel Track

Housing, No. 20 gauge steel, furnished in 4, 6, 8 and 10-foot lengths. Completely covers track and extends below top of door, making same weather and bird-proof.

Top of housing is inclined away from building, making it a perfect water-shed.

Sold separate or with track. Can be placed over old track already erected.

Finish, galvanized only. Cap furnished for each joint one right and one left end piece and screws for housing furnished with each piece.

Weight: Housing for Single Track, per foot, 1 lb.; for Parallel Track, per foot, 1½ lbs.

### List Price

List prices are for housings only and do not include track or brackets

Housing No.		For Track No.	Using Hangers No.	List Price	
For Single Track	For Parallel Track			For Single Track, per Foot	For Parallel Track, per Foot
296-2	296-22	31	20	\$.25	\$.50
		31	021		
		31	21		
		31	24		
		31	321		
		35	421		
		35	0521		
296-3	296-23	35	521	.25	.50
		31	20½-B		
		31	20-2		
		31	25		
		31	27½-B		
		31	621		
		31	821		
296-4	296-24	35	721	.25	.50
		35	921		
		32	28-L		
		32	28-V		
		32	28½-B		
296-6	296-26	232	29-L	.40	.75
		232	29-V		
		232	29½-B		
296-7	296-27	33	120	.50	.80
		33	121		
		33	123½-B		
		33	150		
		33	150½-B		

See Page 193 for Trolley Track.

Discount.....

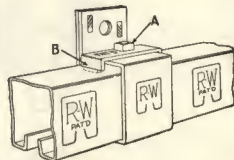


## R-W Standard Size Trolley Tracks

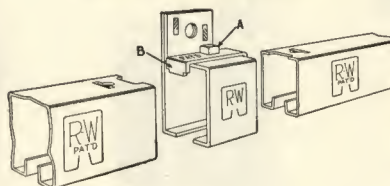
No. 33 Trolley Track, 13 Gauge

No. 35 Trolley Track,  
14 Gauge

No. 30 Trolley  
Track, 16 Gauge



These Tracks  
are  
Perforated  
to Receive  
Lock Joint Brackets  
which  
Bind and Lock  
Tracks  
Securely Together



No. 232 Trolley Track, 14 Gauge

No. 31 Trolley Track,  
16 Gauge

No. 75 Trolley Track,  
14 Gauge

No. 32 Trolley Track,  
14 Gauge

No. 30 1/2 Trolley Track,  
16 Gauge

### List Price

Track No.	Weight Lbs.	Unit	Straight Track		Curved Track	
			Black	Galvanized	Black	Galvanized
30	1	Per ft.	\$ .20	\$ .23	\$1.60	\$1.85
30 1/2	1 1/2	Per ft.	.21	.24	1.60	1.85
31	1 3/8	Per ft.	.25	.29	1.60	1.85
32	2 1/2	Per ft.	.37	.43	2.10	2.44
33	4	Per ft.	.58	.75	2.70	3.10
35	2 1/4	Per ft.	.25	.29		
75	2	Per ft.	.27	.31	1.75	2.00
232	2 3/4	Per ft.	.45	.60	2.40	2.75

Discount.....



No. 31—Curved Track



No. 31—Straight Track

Tracks shown are all full size cross section. Furnished in lengths up to 10 feet in one piece. Brackets furnished for these tracks to suit requirements. Brackets illustrated on page 194.

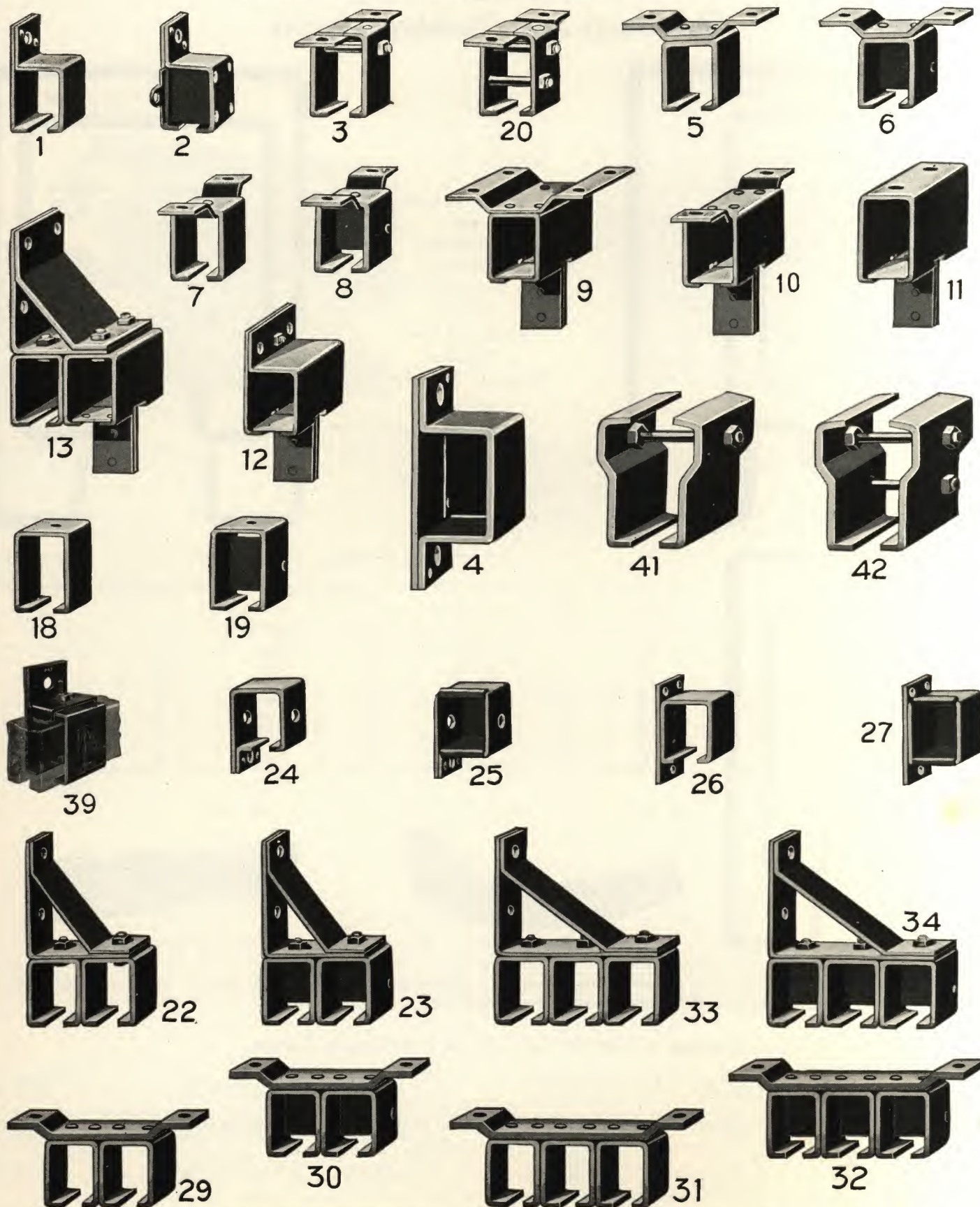
### Number of Feet Straight Track in 90 Degree Curves

2 ft. 0 inch Radius.....3.1416 ft.	5 ft. 0 inch Radius.....7.8540 ft.	8 ft. 0 inch Radius.....12.5664 ft.
2 ft. 6 inch Radius.....3.9270 ft.	5 ft. 6 inch Radius.....8.6394 ft.	8 ft. 6 inch Radius.....13.3518 ft.
3 ft. 0 inch Radius.....4.7124 ft.	6 ft. 0 inch Radius.....9.4248 ft.	9 ft. 0 inch Radius.....14.1372 ft.
3 ft. 6 inch Radius.....5.4976 ft.	6 ft. 6 inch Radius.....10.3102 ft.	9 ft. 6 inch Radius.....14.9228 ft.
4 ft. 0 inch Radius.....6.2833 ft.	7 ft. 0 inch Radius.....10.9956 ft.	10 ft. 0 inch Radius.....15.7080 ft.
4 ft. 6 inch Radius.....7.0686 ft.	7 ft. 6 inch Radius.....11.7810 ft.	

Note—Curves cannot be satisfactorily bent to a shorter radius than 2 feet.



## Standard Trolley Track Brackets



Above numbers are style numbers only. See directions for ordering on opposite page.  
Brackets for Over-Way Trolley Tracks are Shown on Pages 346 to 349.



## R-W Standard Trolley Track Brackets

**Numbers, Description and List Prices, Cover Brackets, in Black Japan Finish,  
Illustrated on Preceding Page**

**Important**—Always specify catalog number of track for which brackets are desired and finish. Example: A No. 1 style bracket for No. 30 track is wanted. Show as follows: 1 x 30 bracket; if for No. 33 track show 1 x 33 bracket, etc.

Bracket No.	DESCRIPTION	FOR TRACK NUMBER—PRICE EACH							
		30	30½	31, 75 or 526	32	33	35	232	145
1	Side Center Bracket.....	\$ .20	\$ .21	\$ .21	\$ .37	\$ .55	\$ .21	\$ .45	\$1.35
2	Side Right or Left End Bracket.....	.20	.21	.21	.37	.55	.21	.45	*
3	Split Center Bracket.....	.32	.33	.40	.53	.93	*	.80	*
4	Side End Bracket, Right or Left.....	*	*	*	*	*	*	*	1.35
5	Cross Ear Ceiling Center Bracket.....	.20	.21	.24	.37	.62	*	.45	1.35
6	Cross Ear Ceiling Right or Left End Bracket.....	.20	.21	.24	.37	.62	*	.45	1.35
7	Parallel Ear Ceiling Center Bracket.....	.20	.21	.24	.37	.62	*	.45	1.35
8	Parallel Ear Ceiling Right or Left End Bracket.....	.20	.21	.24	.37	.62	*	.45	1.35
9	Cross Ear Ceiling Center Stop Bracket.....	*	*	.66	.93	1.35	*	1.05	2.70
10	Parallel Ear Ceiling Center Stop Bracket.....	*	*	.66	.93	1.35	*	1.05	2.70
11	Plain Ceiling Center Stop Bracket.....	*	*	.66	.93	1.35	*	1.05	2.70
12	Side Center Stop Bracket.....	*	.66	.66	.93	1.35	.66	1.05	3.35
13	Side Double Half Center Stop Bracket.....	*	1.05	1.35	1.85	2.70	1.35	2.15	5.35
18	Plain Ceiling Center Bracket.....	.20	.21	.24	.37	.62	*	.45	1.35
19	Plain Ceiling Right or Left End Bracket.....	.20	.21	.24	.37	.62	*	.45	1.35
20	Split Right or Left End Bracket.....	.38	.40	.47	.60	1.05	*	.93	*
22	Side Double Center Bracket.....	.66	.66	.66	.93	1.35	.66	1.20	6.75
23	Side Double Right or Left End Bracket.....	.66	.66	.66	.93	1.35	.66	1.20	6.75
24	Inverted Ear Center Side Bracket.....	*	*	.21	*	*	*	*	*
25	Inverted Ear Right or Left End Side Bracket.....	*	*	.21	*	*	*	*	*
26	Light Inverted Ear Side Center Bracket.....	*	*	.21	*	*	*	*	*
27	Light Inverted Ear Side Right or Left End Bracket....	*	*	.21	*	*	*	*	*
29	Double Cross Ear Center Bracket.....	*	*	.66	.93	1.35	*	1.05	*
30	Double Cross Ear Right or Left End Bracket.....	*	*	.66	.93	1.35	*	1.05	*
31	Triple Cross Ear Center Bracket.....	*	*	1.35	1.75	2.40	*	2.00	*
32	Triple Cross Ear Right or Left End Bracket.....	*	*	1.35	1.75	2.40	*	2.00	*
33	Side Triple Center Bracket.....	*	*	1.05	1.35	2.00	1.05	1.75	*
34	Side Triple Right or Left End Bracket.....	*	*	1.05	1.35	2.00	1.05	1.75	*
39	Lock Joint Side Bracket.....	*	*	.31	.47	.79	.30	.60	*
†41	I-Beam Center Bracket.....	*	*	1.00	*	.80	*	*	1.60
†42	I-Beam End Bracket with Bolt.....	*	*	1.00	*	.80	*	*	1.60
**059	Lock Joint Cross Ear Ceiling Center Bracket.....	*	*	.33	.47	.79	*	.60	*
**079	Lock Joint Parallel Ear Ceiling Center Bracket.....	*	*	.33	.47	.79	*	.60	*
**189	Lock Joint Plain Ceiling Center Bracket.....	*	*	.33	.47	.79	*	.60	*
**229	Lock Joint Side Double Center Bracket.....	*	*	.90	1.20	1.80	.90	1.60	*
**339	Lock Joint Side Triple Center Bracket.....	*	*	1.40	1.80	2.70	1.40	2.35	*

**Discount**.....

**Note**—\*Indicates "Not manufactured for this type of track".

When ordering I-Beam Brackets, always specify size and weight per foot of I-Beam.

†For 9" I-Beam or less. Brackets for larger sized I-Beams priced upon request.

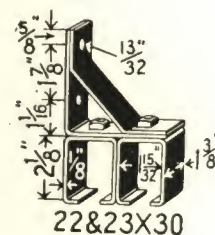
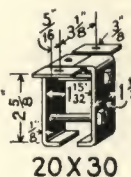
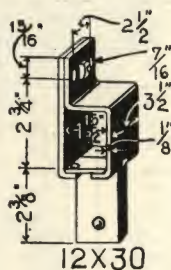
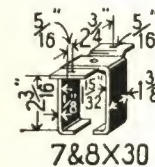
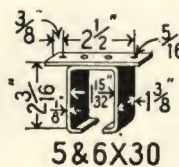
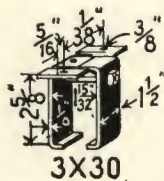
For Galvanized Brackets, add 20% to above list prices on Nos. 30, 30½, 31, 32, 35, 75, and 526 track, and 25% on Nos. 33, 145 and 232 track. All Brackets for No. 31 track except styles 9, 10, 11, 12, 13, 24, 25, 26, 27, and 39 will fit No. 35 track.

\*\*These Brackets are the same as the Nos. 5, 7, 18, 22 and 33 brackets respectively, except that they have the Lock Joint feature similar to the No. 39 bracket as illustrated on the opposite page.

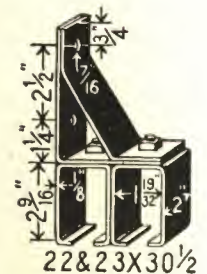
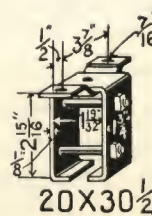
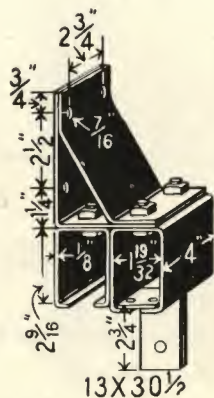
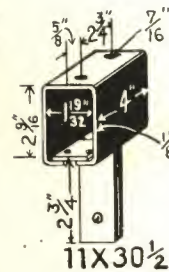
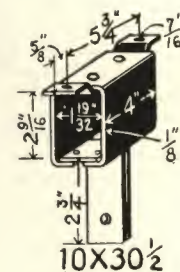
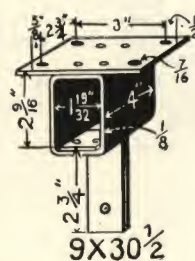
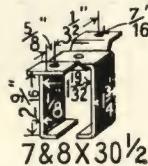
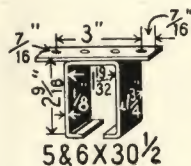
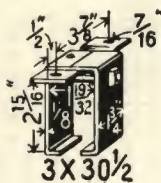
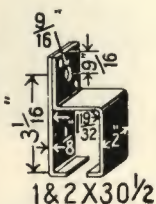
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## Dimensions of R-W Standard Size Trolley Track Brackets



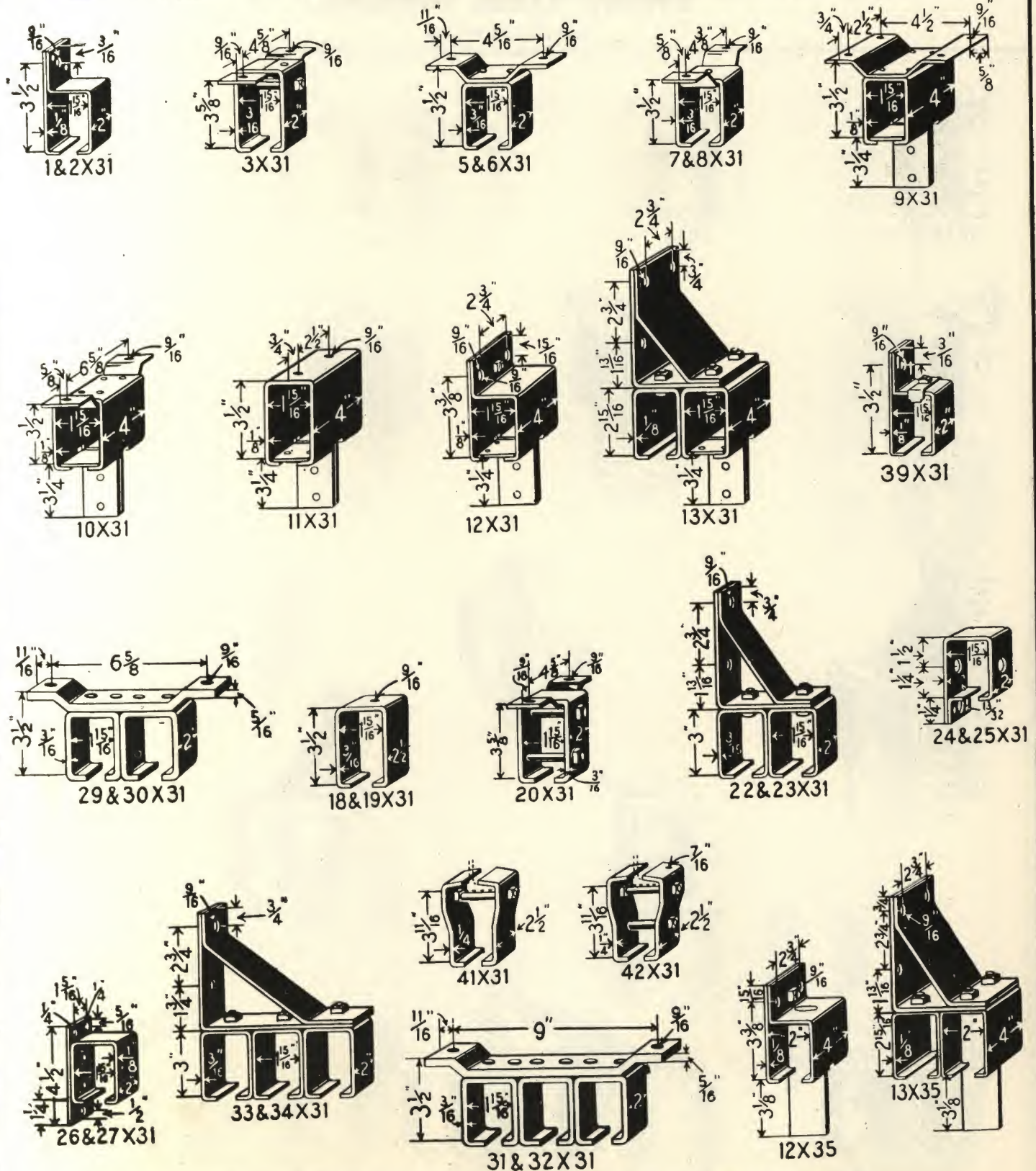
For No. 30 Track



And for No. 30 1/2 Track



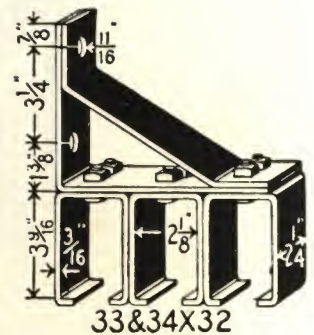
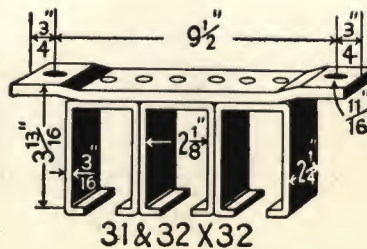
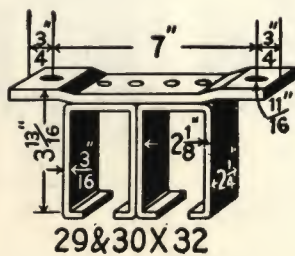
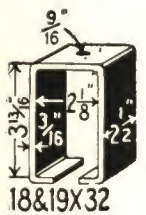
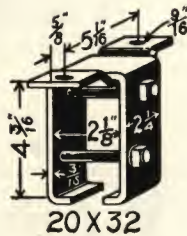
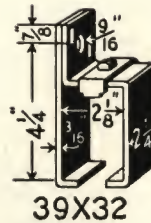
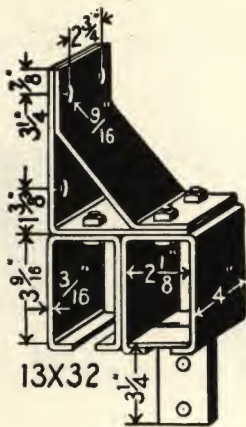
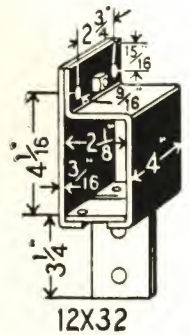
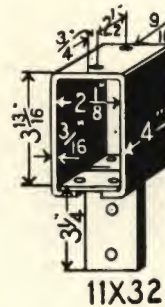
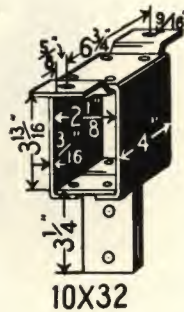
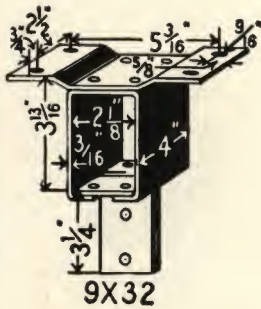
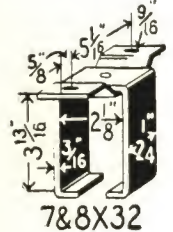
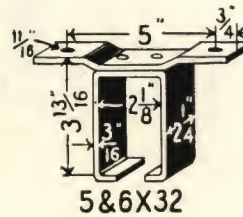
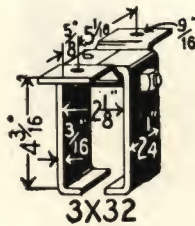
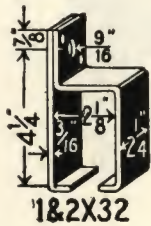
## Dimensions of R-W Standard Size Trolley Track Brackets For Nos. 31 and 35 Track



All Brackets for No. 31 Track except styles 9, 10, 11, 12, 13, 24, 25, 26 and 27 will fit No. 35 Track.

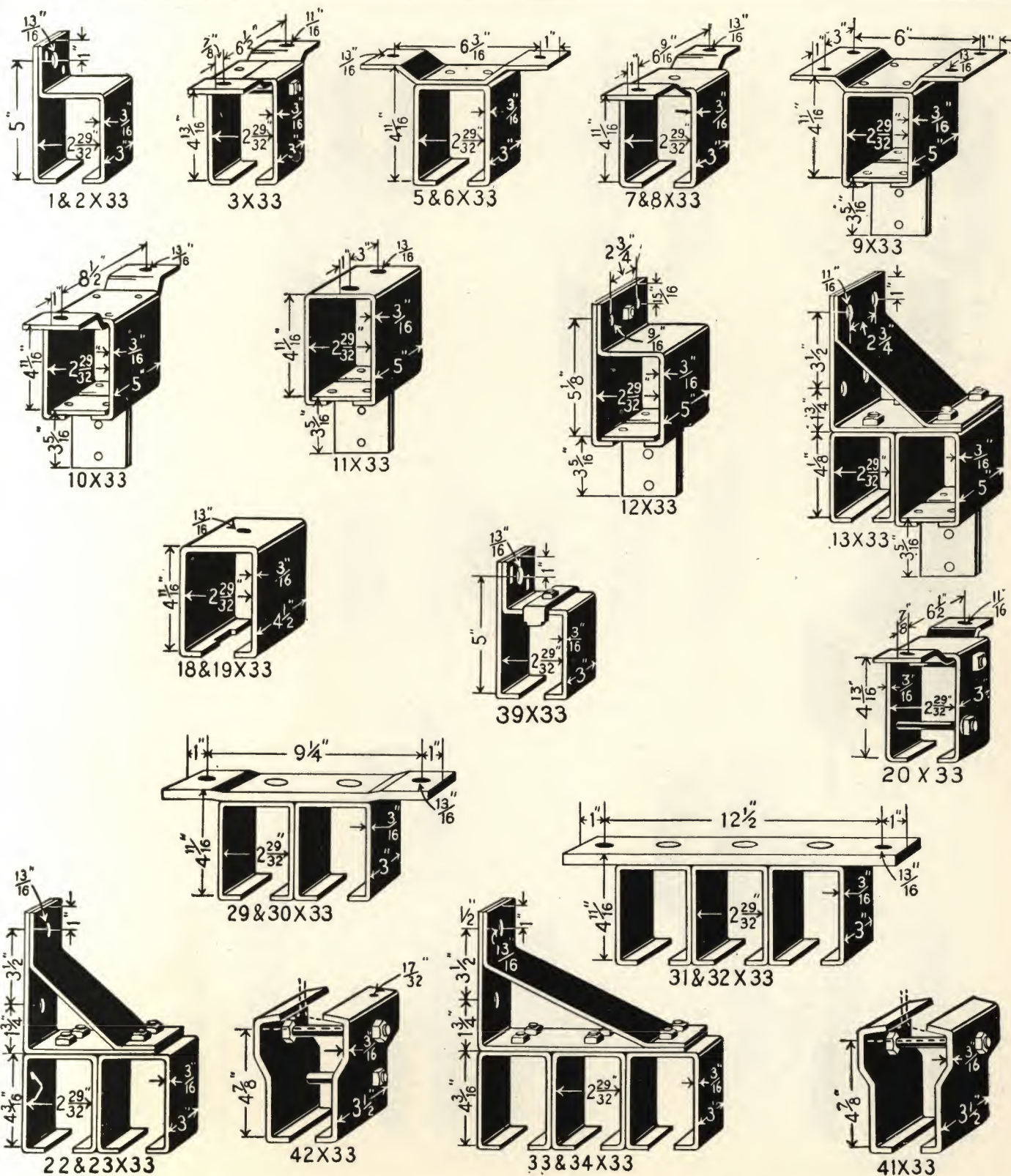


## Dimensions of R-W Standard Size Trolley Track Brackets For No. 32 Track



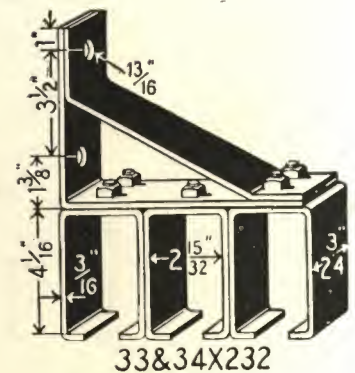
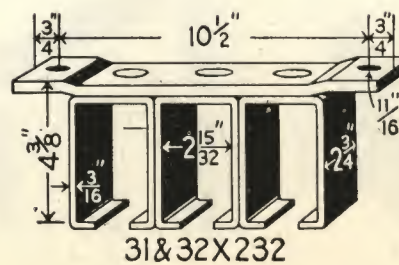
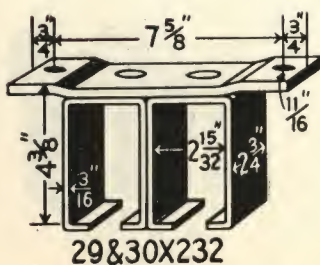
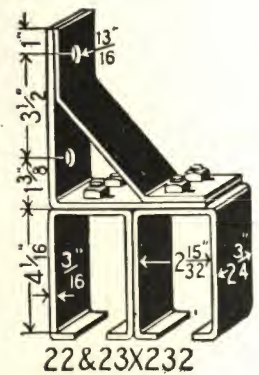
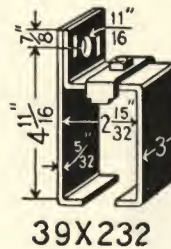
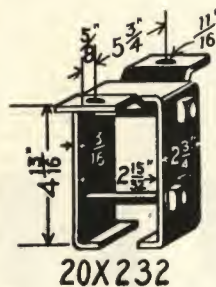
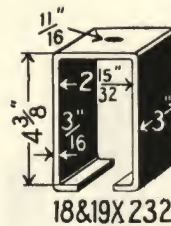
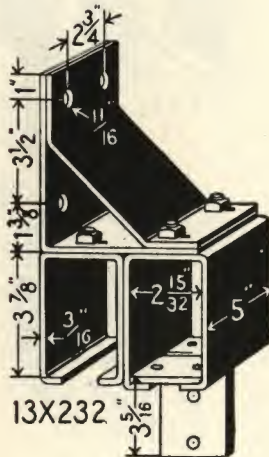
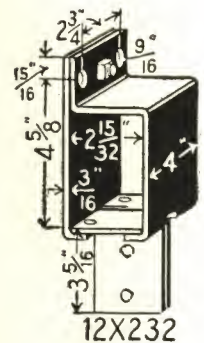
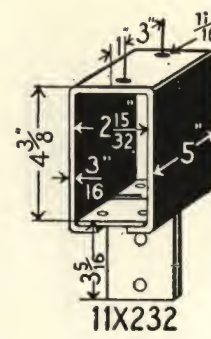
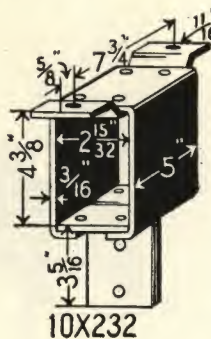
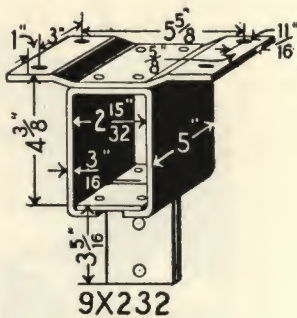
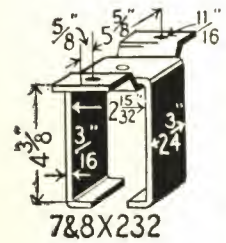
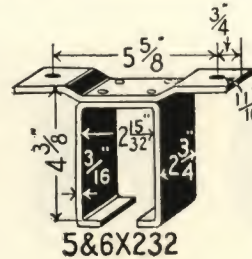
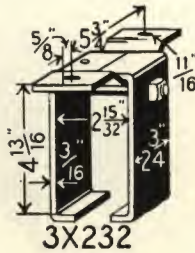
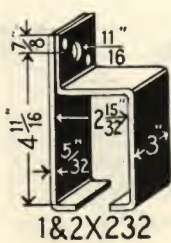


## Dimensions of R-W Standard Size Trolley Track Brackets For No. 33 Track



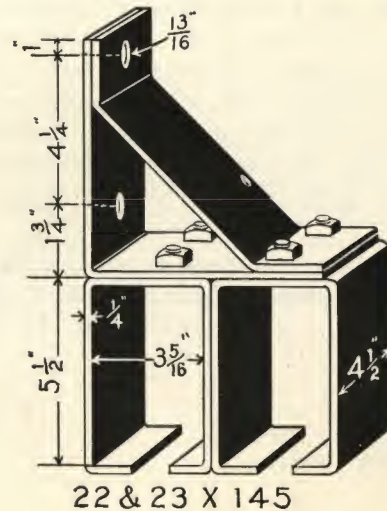
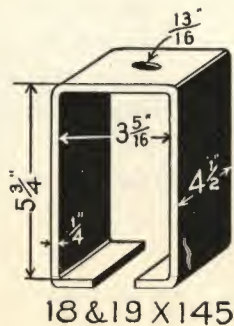
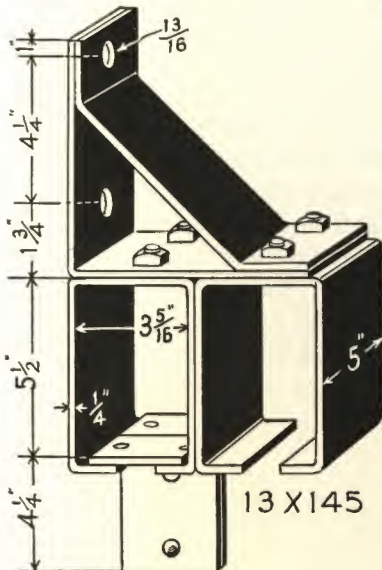
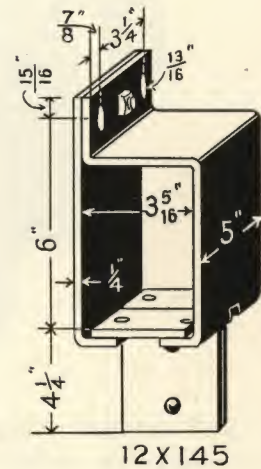
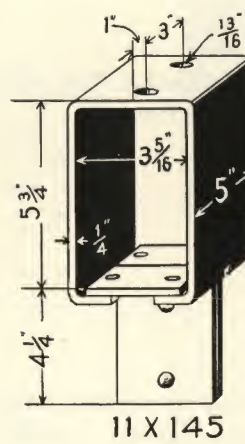
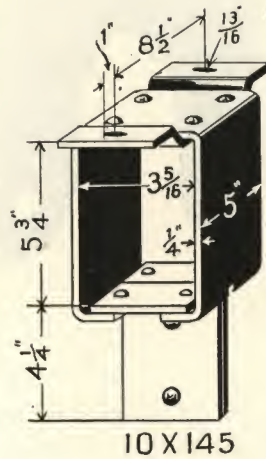
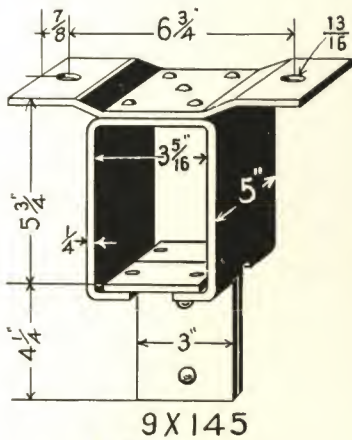
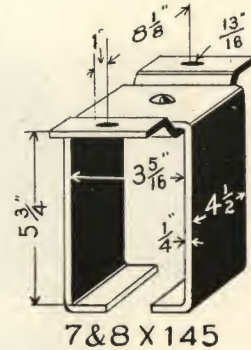
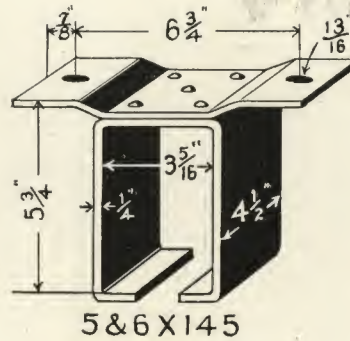
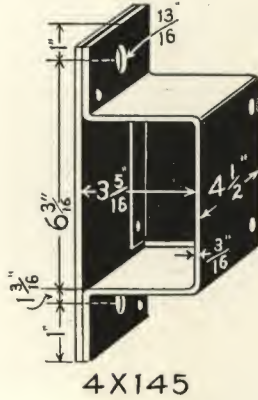
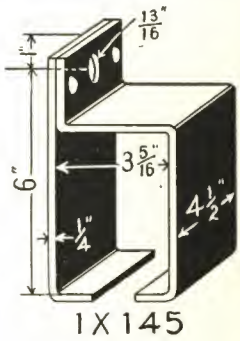


## Dimensions of R-W Standard Size Trolley Track Brackets For No. 232 Track





## Dimensions of R-W Standard Size Trolley Track Brackets For No. 145 Track





## R-W No. 158-2 Barn Door Hanger Using No. 157-2 Water-Proof Track



For Doors Weighing Not More  
than 300 Pounds

No. 158-2

No. 158-2 Hanger; wheels gray iron, round tread, 3 inches in diameter, roller bearing. Apron, number 10 gauge steel,  $3\frac{1}{2}$  inches wide,  $7\frac{3}{4}$  inches long over all, punched for  $\frac{5}{16}$  inch bolts. Apron is pivoted to hanger carriage to equalize the load on both wheels. Packed; one pair of hangers, two track blinds, one joint cap and bolts for attaching hanger to door. Packed in metal edge box. For doors  $1\frac{3}{4}$  inches thick. Finish, black enamel. Weight, No. 158-2 hangers, per pair 8 pounds.

No. 157-2 Track is made of two pieces of steel riveted together. The piece which rests against the wall is made

of No. 14 gauge steel and the lower end forms the runway for the hanger. The outside piece is made of No. 16 gauge steel and forms a watershed over the hanger and track runway. The upper end is formed so that when the track is bolted to the building it is forced tightly against the building to prevent water from running down behind the track. The lower end of the track extends below the top of the door, protecting it from the weather. The track is storm-proof and bird-proof. Finish, black japan. Made in 4, 6, 8 and 10 foot lengths. Weight, per foot  $2\frac{1}{2}$  pounds. Joint caps are furnished to be used over the joints in the track and blinds are furnished for each end.

### List Price

	Black	*Galvanized
No. 158-2 Hangers. Per pair.....	\$2.40	\$2.70
No. 157-2 Track. Per foot.....	.30	.35

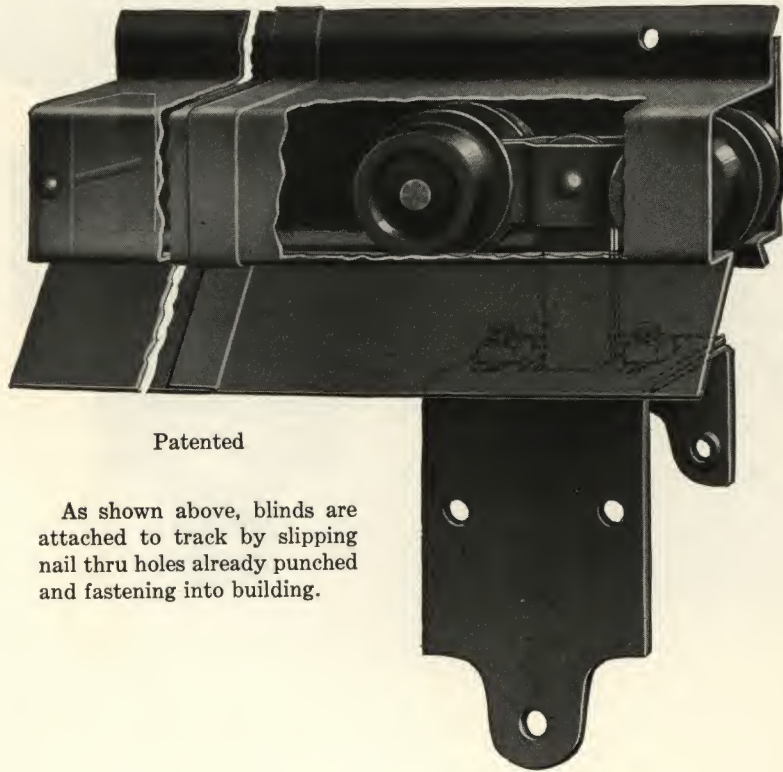
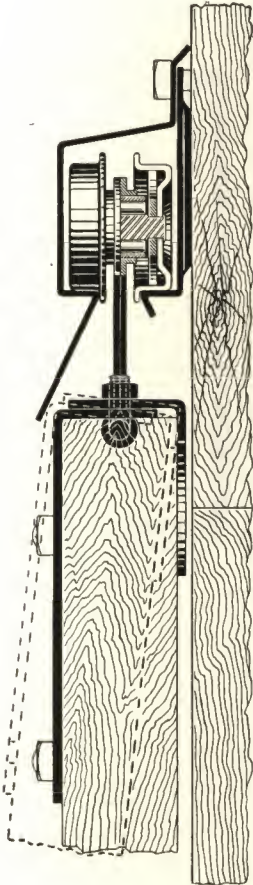
Discount.....



R-W No. 399-36

## "Fault-Proof" Barn Door Hanger

Roller-Bearing  
For Doors Weighing Approximately 300 Pounds



Patented

As shown above, blinds are attached to track by slipping nail thru holes already punched and fastening into building.

### No. 399-36

Track, No. 36 self-cleaning type, No. 14 gauge steel, furnished in 4, 6, 8 and 10-ft. lengths in one piece. Attached directly to side of building, no loose brackets required. Lag screws are packed with track.

Track is made in two pieces which are riveted together. The front piece, as shown, fits tight at the top against the building, extends down, forming one of the run-ways and continues below top of door, making same weather and bird-proof. The back piece forms the second run-way; bosses as shown hold track away from building, allowing free passage of air; the ends are made with telescopic joints, so they connect easily and securely, forming a

perfect joint. Blinds furnished for both ends. Finish, black japan, regular.

Hangers, wheels steel, 2¼ inches diameter. Bearings, steel rollers. Finish, black enamel or \*Galvanized. Adjustment, lateral only. Flexible joint. Apron, 6 inches long, 3½ inches wide, ⅛ inch thick, punched for ⅝ inch bolts. For doors 1¾ to 2 inches thick. Distance top of door to top of track, 5¾ inches. Packed one pair of hangers with carriage and stove bolts, two blinds and socket wrench with tapered end to fit brace, for lag screws; in metal-edged box. Weight: hangers, per pair, 7 lbs.; track, per foot, including lag screws, 3 lbs.

### List Price

	Black	*Galvanized
No. 399x36 Fault-Proof Hangers. Per pair .....	\$2.00	\$2.30
No. 36 Fault-Proof Track, including lag screws for attaching. Per foot .....	.35	.40

Discount .....

\*Exposed parts of hangers only are galvanized.

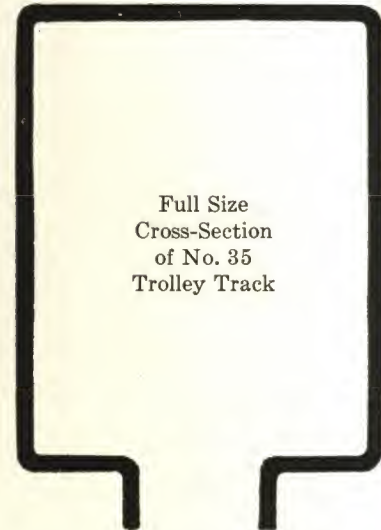
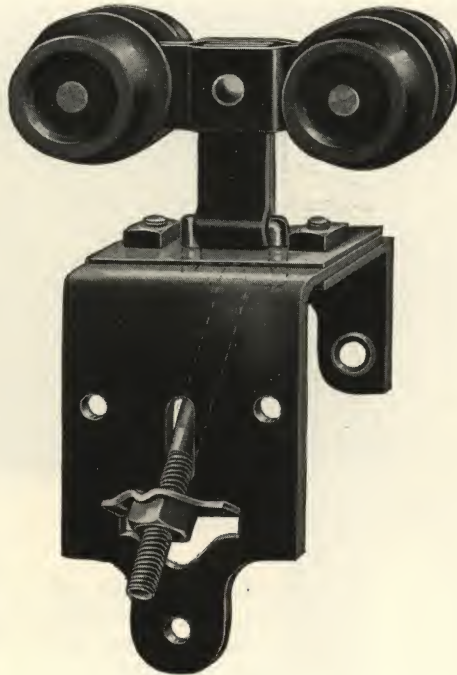
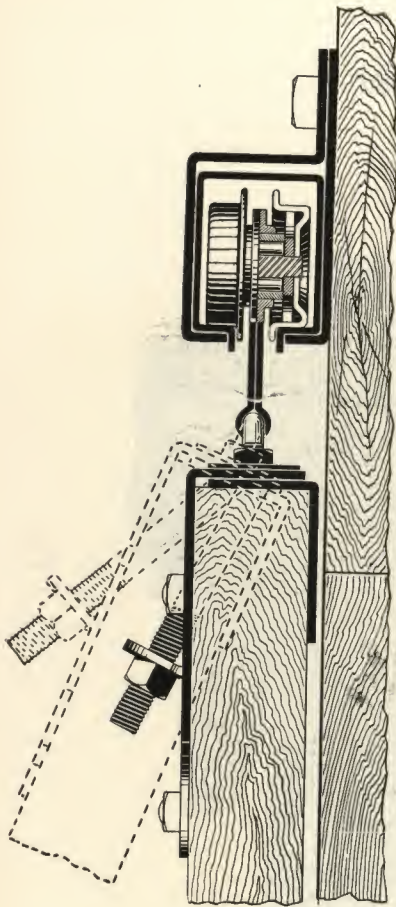


## R-W No. 423 Barn Door Hanger

Roller Bearing  
For Doors Weighing Up to 300  
Pounds

Distance top of door to  
bottom of track: Minimum,  $1\frac{1}{2}$   
inches; Maximum,  $2\frac{1}{4}$  inches.

Bottom of track to center of  
hole in bracket,  $3\frac{1}{2}$  inches.



Full Size  
Cross-Section  
of No. 35  
Trolley Track

### No. 423

Wheels, steel,  $2\frac{1}{4}$  inch diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Apron, 6 inches long,  $3\frac{1}{2}$  inches wide,  $\frac{1}{8}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. For doors  $1\frac{3}{4}$  to  $2\frac{1}{2}$  inches thick when used with No. 35 track. Adjustment, lateral and vertical. The vertical adjustment is easily accessible and is accomplished by means of the nut on the end of the pendant bolt which projects through the side of the apron. The nut has a groove in its upper face which registers with a projection

on the face of the bent lug of the apron, to prevent change of adjustment. Furnished regularly for use with No. 35 track. Packed one pair of hangers with carriage and stove bolts; two end and one patented lock joint bracket with  $7/16 \times 2\frac{1}{2}$  inch lag screws and two patented track stops for end brackets, see page 194, with  $\frac{3}{8} \times 1\frac{1}{2}$  inch lag screws, in metal edged box. If so desired, specify No. 423 x 36. Weight: Hangers per pair, 6 lbs.; No. 35 track, per foot, 2.1 lbs.; brackets, each 1 lb.

### List Price

	Black	*Galvanized
No. 423 Hangers, with two end and one lock joint bracket. For use with No. 35 track. Per pair.....	\$2.80	\$3.10
No. 423 Hangers only, less brackets, for use with No. 35 track. Per pair.....	2.35	2.55
No. 35 Track, 4, 6, 8 and 10-foot lengths, (6 pieces to bundle), see page 193. Per foot.....	.25	.29
Extra No. 1 x 31 Brackets, with lag screws. Each.....	.21	.25

Discount.....

\*Exposed parts of hangers only are galvanized.

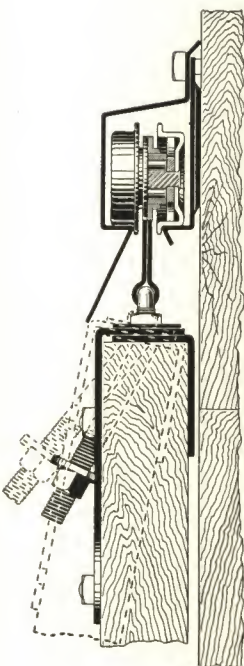
Note—Specify on order if extra brackets are desired. For other types of brackets, see page 194.

*Brackets should be spaced not to exceed 30-inch centers.*

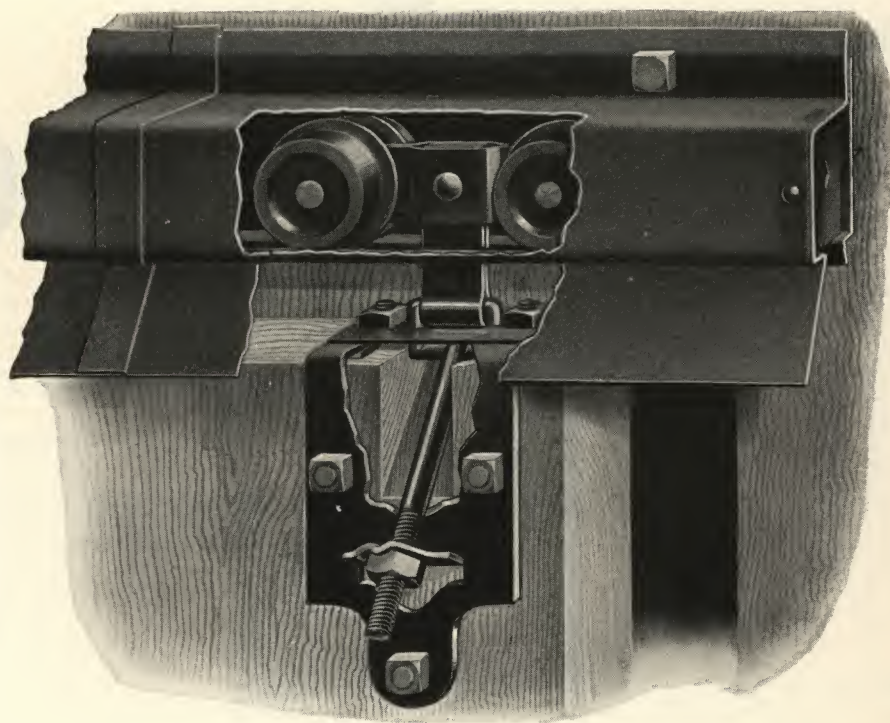


## R-W No. 423 x 36 Barn Door Hanger

Roller-Bearing  
For Doors Weighing Up to 300 Pounds



Distance top of  
door to top of  
Track  
Minimum  $5\frac{3}{8}$ "  
Maximum  $6\frac{1}{8}$ "



### No. 423 x 36

Wheels, steel,  $2\frac{1}{4}$ " diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Apron 6" long,  $3\frac{1}{2}$ " wide,  $\frac{1}{8}$ " thick, punched for  $5/16$ " bolts. For doors  $1\frac{3}{4}$ " to 2" thick. Adjustment lateral and vertical. The vertical adjustment is easily accessible and is accomplished by means of the nut on the end of the pendant bolt which projects through the side of the apron. The nut has a groove in its upper face which registers with a projection on the face of the bent lug of the apron, to prevent change of adjustment. Weight: Hangers per pair, 6 lbs.

Track, R-W No. 36 self-cleaning type, No. 14 Gauge steel, furnished in 4, 6, 8 and 10 ft. lengths in one piece.

Attached directly to side of building, no loose brackets required. Lag screws are packed with track.

This track is made in two pieces which are riveted together. The front piece as shown, fits tight at the top against the building, extends down, forming one of the run-ways, and continues below top of door, making same weather and bird-proof. The back piece forms the second run-way; bosses as shown hold track away from building, allowing free passage of air; the ends are made with telescopic joints, so they connect easily and securely, forming a perfect joint. Blinds furnished for both ends. Finish black japan regular.

### List Price

No. 423 x 36 Hangers only, per pair .....	Black	†Galvanized
No. 36 Fault-Proof Track, including lag screws per foot .....	\$2.35	2.55
	.35	.40

Discount .....

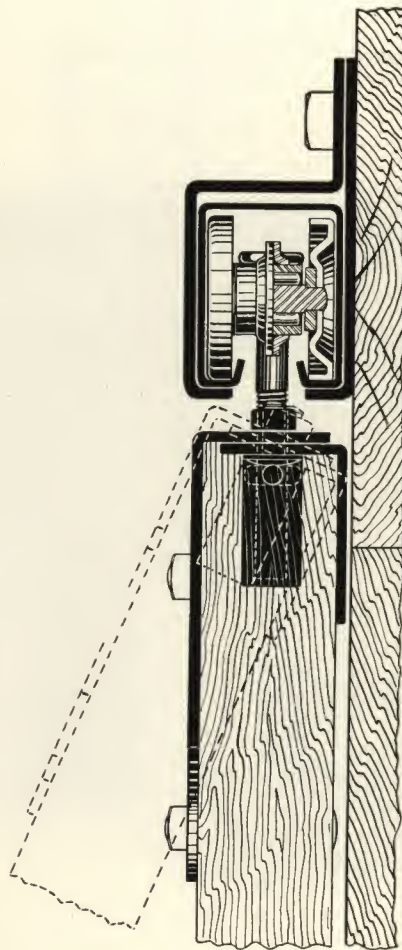
†Exposed parts of hangers only are galvanized.



R-W No. 223

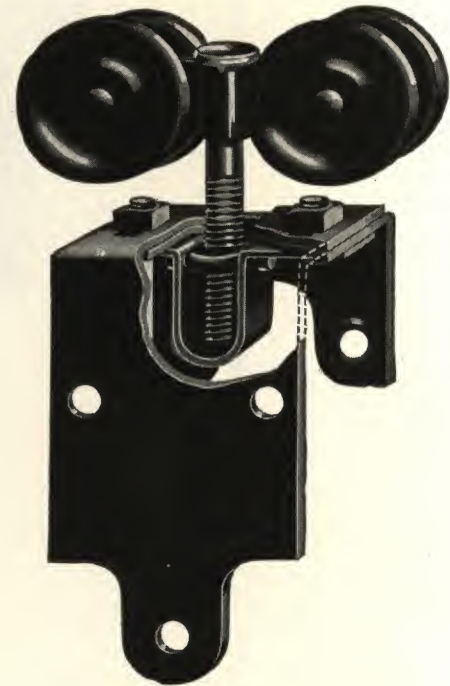
## FouR-Way Hanger

Patent Applied For



Distance top of door  
to bottom of track:  
Minimum, 1 inch;  
Maximum, 1 3/4 inches

Bottom of track  
to center of hole  
in bracket, 3 1/2 inches



No. 223

### For Doors Weighing Not More Than 300 Pounds

This hanger has all the valuable features of other adjustable and flexible hangers but requires much less headroom and cannot be incorrectly installed. Wheels, Steel, 2 1/8 inches diameter. Steel roller bearings. Flexible joint. Vertical and lateral adjustment. Finish, black enamel or galvanized. Adjustable for doors 1 3/4 to 2 1/2 inches thick. Apron, 6 inches long, 3 1/2 inches wide and 1/8 inch thick, punched for 5/16 inch bolts. Lugs on the lower side of

the pendant bolt head engage notches in the frame to maintain vertical adjustment. Packed one pair hangers with carriage and stove bolts, one patented lock joint and two end brackets with 7/16 x 2 1/2 inch lag screws and two patented track stops with 3/8 x 1 1/2 inch lag screws for end brackets, in metal edged box. Weight: No. 223 hangers, per pair 8 1/2 pounds; No. 31 track per foot, 1 2/3 pounds.

### List Price

	Black	*Galvanized
No. 223 Hangers, with two end and one lock joint bracket. Per Pair.....	\$2.50	\$2.80
No. 223 Hangers, less brackets. Per Pair.....	2.05	2.25
No. 31 Track; 4, 6, 8, 10-ft. lengths, (8 pieces to bundle), see page 193. Per foot.....	.25	.29
Extra, No. 1 x 31 Brackets with lag screws. Each.....	.21	.25

Discount.....

\*Only exposed parts of hangers are galvanized.

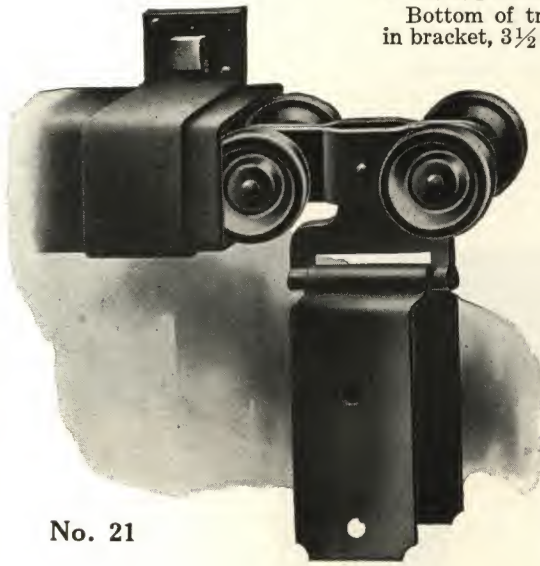
Note—Specify on order if extra brackets are desired. For other types of brackets see pages 194 to 201.

Brackets should be spaced not to exceed 30-inch centers

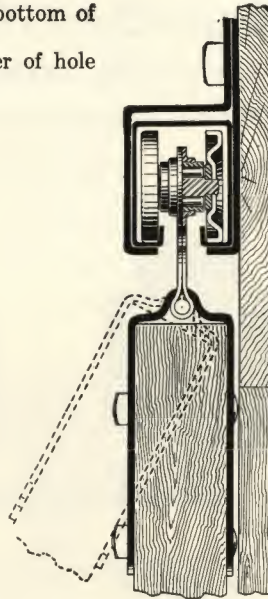


Distance top of door to bottom of track,  $1\frac{1}{4}$  inches.

Bottom of track to center of hole in bracket,  $3\frac{1}{2}$  inches.



No. 21



R-W No. 21 "Flexo"

and

R-W No. 321 "Tip Top"

Barn Door Hangers

Roller Bearing

For Doors Weighing  
Approximately 300 Pounds

See  
Next Page  
for  
Full Sized  
Cross-Section  
of  
Track

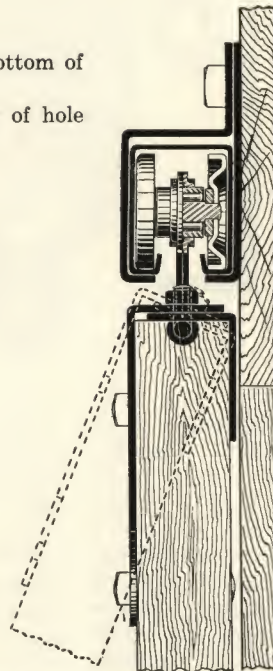
Distance top of door to bottom of track,  $\frac{7}{8}$  inches.

Bottom of track to center of hole in bracket,  $3\frac{1}{2}$  inches.



No. 321

Patented



## Description

Wheels, steel,  $2\frac{1}{8}$  inches in diameter. Bearings, steel rollers. Flexible joint. For doors  $1\frac{3}{4}$  to  $2\frac{1}{2}$  inches thick. Finish, black enamel or galvanized.

**No. 21 Hangers:** Aprons are hinged, 5 inches long,  $2\frac{1}{4}$  inches wide,  $\frac{1}{8}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. Adjustment, lateral and vertical. Packed one pair of hangers with carriage bolts, one patented lock joint and two end brackets with  $\frac{7}{16}$  x  $2\frac{1}{2}$  inch lag screws, and two patented track stops with  $\frac{3}{8}$  x

$1\frac{1}{2}$  inch lag screws for end brackets, (see page 194), in metal-edged box. Weight: No. 21 Hangers, per pair, 8 lbs.; Track, per foot  $1\frac{2}{3}$  lbs.; Brackets, each, 1 lb.

**No. 321 Hangers:** Aprons are hinged, 6 inches long,  $3\frac{1}{2}$  inches wide,  $\frac{1}{8}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. Adjustment, lateral only. Packed one pair of hangers with carriage and stove bolts, one patented lock joint and two end brackets with  $\frac{7}{16}$  x  $2\frac{1}{2}$  inch lag screws and two patented track stops with  $\frac{3}{8}$  x  $1\frac{1}{2}$  inch lag screws for end brackets, (see page 194), in metal-edged box. Weight: No. 321 Hangers, per pair, 10 lbs; Track, per foot,  $1\frac{2}{3}$  lbs.; Brackets, each, 1 lb.

## List Price

	Black	*Galvanized
No. 21 Hangers, with two end and one lock joint bracket. Per pair.....	\$2.30	\$2.60
No. 21 Hangers, less brackets. Per pair.....	1.85	2.05
No. 321 Hangers, with two end and one lock joint bracket. Per pair.....	2.30	2.60
No. 321 Hangers, less brackets. Per pair.....	1.85	2.05
No. 31 Track, 4, 6, 8 and 10-foot lengths, (8 pieces to bundle), see page 193. Per foot.....	.25	.29
Extra No. 1x31 Brackets with lag screws. Each.....	.21	.25

\*Only exposed parts of hangers are galvanized.

**Note**—Specify on order if extra brackets are desired. For other types of brackets, see pages 194 to 201. Brackets should be spaced not to exceed 30-inch centers.

Discount.....



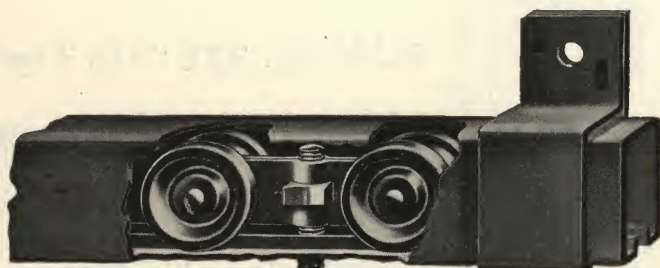
## R-W No. 621 "Justaflex"

## Barn Door Hangers

## R-W No. 821

Roller-Bearing

For Doors Weighing Approximately 300 Pounds



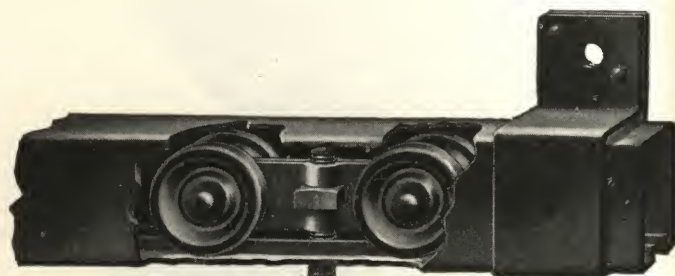
Distance top of door to bottom of track  
Minimum,  $2\frac{3}{8}$  inches;  
Maximum, 3 inches.

Bottom of track to center hole in bracket,  
 $3\frac{3}{4}$  inches.

Patented,  
June, 1913



Full Size  
Cross-Section  
No. 31  
Track



Distance top of door to bottom of track:  
Minimum,  $1\frac{3}{4}$  inches;  
Maximum,  $2\frac{1}{2}$  inches.

Bottom of track to center of hole in bracket,  
 $3\frac{1}{2}$  inches.

Patented,  
March, 1914.



### Description of No. 621 Hanger

Wheels, steel,  $2\frac{1}{8}$  inches diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Flexible joint. Aprons, 6 inches long,  $3\frac{1}{2}$  inches wide,  $\frac{1}{8}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. For doors  $1\frac{3}{4}$  to  $2\frac{1}{2}$  inches thick. Packed one pair of hangers with carriage and stove bolts, one patented lock joint and two end brackets with  $\frac{7}{16}$  x  $2\frac{1}{2}$  inch lag screws and two patented track stops with  $\frac{3}{8}$  x  $1\frac{1}{2}$  inch lag screws for end brackets, in metal-edged box. (One adjusting wrench is furnished.) Hangers: Adjustment, lateral and vertical; weight, per pair 10 lbs. Track, per foot,  $1\frac{2}{3}$  lbs. Brackets, each, 1 lb.

### Description of No. 821 Hanger

Wheels, steel,  $2\frac{1}{8}$  inches diameter. Bearings, steel rollers. Flexible joint. Finish, black enamel or galvanized. Aprons are hinged, 5 inches long,  $2\frac{1}{4}$  inches wide,  $\frac{1}{8}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. For doors  $1\frac{3}{4}$  to 2 inches thick. Packed one pair of hangers with carriage bolts, one patented lock joint and two end brackets with  $\frac{7}{16}$  x  $2\frac{1}{2}$  inch lag screws, and two patented track stops with  $\frac{3}{8}$  x  $1\frac{1}{2}$  inch lag screws for end brackets, in metal-edged box. One adjusting wrench is furnished. Hangers, adjustment, lateral and vertical. Weight, per pair,  $8\frac{1}{2}$  pounds; Track, per foot,  $1\frac{2}{3}$  lbs.; Brackets, each 1 lb.

### List Price

	Black	*Galv.
No. 621 Hangers, with two end and one lock joint bracket. Per pair.....	\$2.40	\$2.70
No. 621 Hangers, less Brackets. Per pair.....	1.95	2.15
No. 821 Hangers, with two end and one lock joint bracket. Per pair.....	2.40	2.70
No. 821 Hangers, less brackets. Per pair.....	1.95	2.15
No. 31 Track, 4, 6, 8 and 10 foot lengths, (8 pieces to bundle), see page 193. Per foot.....	.25	.29
Extra, No. 1x31 Brackets with lag screws. Each.....	.21	.25

\*Exposed parts of hangers only are galvanized.

Note—Specify on order if extra brackets are desired. For other types of brackets, see pages 194 to 201.

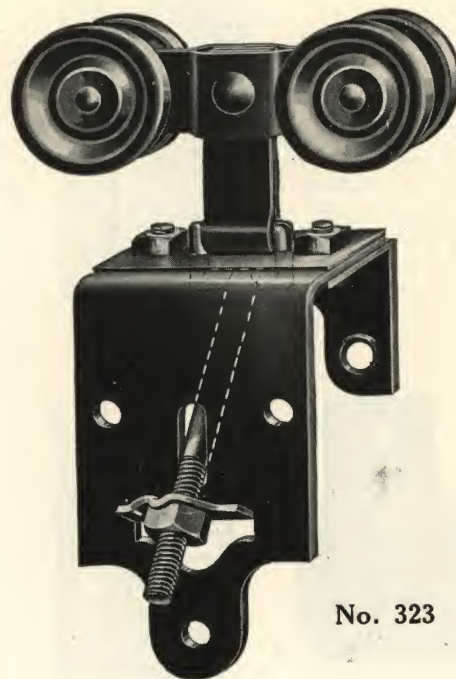
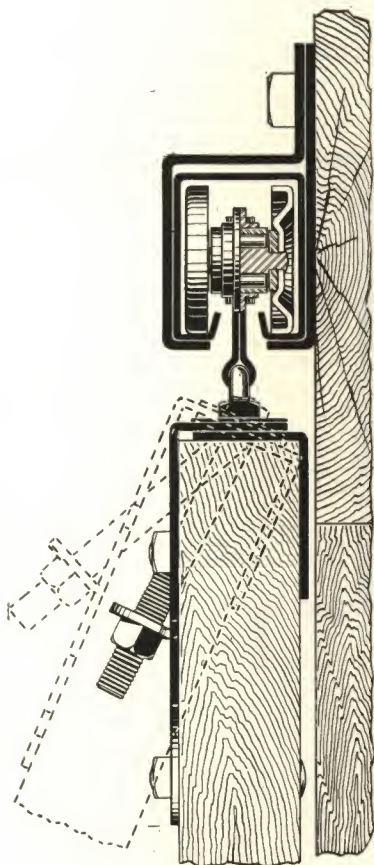
Discount.....

*Brackets should be spaced not to exceed 30-inch centers.*



## R-W No. 323 Barn Door Hanger

Roller-Bearing  
For Doors Weighing Up to 300 Pounds



No. 323

Distance top of door to bottom of track: Minimum,  $\frac{3}{4}$  inches; Maximum,  $1\frac{1}{2}$  inches.

Bottom of track to center of hole in bracket,  $3\frac{1}{2}$  inches.



Full Size  
Cross-Section  
of No. 31  
Trolley Track

Wheels, steel,  $2\frac{1}{8}$  inch diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Apron, 6 inches long,  $3\frac{1}{2}$  inches wide,  $\frac{1}{8}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. For doors  $1\frac{3}{4}$  to  $2\frac{1}{2}$  inches thick. Adjustment, lateral and vertical. The vertical adjustment is easily accessible and is accomplished by means of the nut on the end of the pendant bolt which projects through the side of the apron. The nut has a groove in its upper face which registers with

a projection on the face of the bent lug of the apron, to prevent change of adjustment. Packed one pair of hangers with carriage and stove bolts, two end and one patented lock joint bracket with  $\frac{7}{16} \times 2\frac{1}{2}$  inch lag screws and two patented track stops for end brackets (see page 194), with  $\frac{3}{8} \times 1\frac{1}{2}$  inch lag screws in metal-edged box. Weight: Hangers, per pair,  $4\frac{3}{4}$  lbs., track, per foot,  $1\frac{2}{3}$  lbs., brackets, each, 1 lb.

### List Price

	Black	*Galvanized
No. 323 Hangers, with two end and one lock joint bracket. Per pair.....	\$2.80	\$3.10
No. 323 Hangers only, less brackets. Per pair.....	2.35	2.55
No. 31 Track, 4, 6, 8 and 10-foot lengths, (6 pieces to bundle), see page 193. Per foot.....	.25	.29
Extra No. 1 x 31 Center Brackets with lag screws. Each.....	.21	.25

Discount.....

\*Exposed parts of hangers only are galvanized.

Note—Specify brackets by number. For other types of brackets, see page 194.

*Brackets should be spaced not to exceed 30-inch centers.*

*R-W Malleable D's, page 436, don't keep well. They sell too fast!*

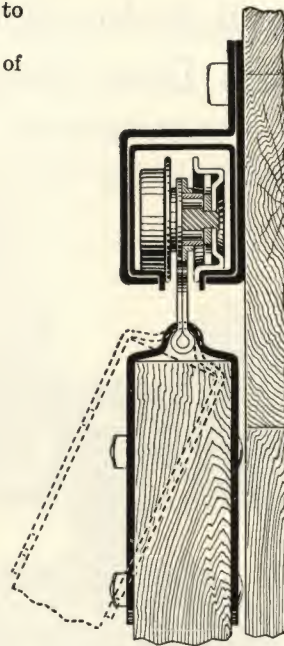




**No. 521**

Patented  
June, 1921

Distance top of door to  
bottom of track,  $1\frac{3}{8}$  inches.  
Bottom of track to center of  
hole in bracket,  $3\frac{1}{2}$  inches.



Distance top of door to  
bottom of track: Minimum,  
 $2\frac{1}{8}$  inches; Maximum, 3 inches.  
Bottom of track to center of  
hole in bracket,  $3\frac{1}{2}$  inches.



**No. 921**

Patented  
March, 1914



## R-W No. 521 "Run-Free" and R-W No. 921 "Adjustrite" Barn Door Hangers

Roller-Bearing  
For Doors Weighing  
Up to 300 Pounds



Full Size  
Cross-Section  
of No. 35  
Trolley Track

Wheels, steel,  $2\frac{1}{4}$  inches diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Flexible joint. Aprons hinged, 5 inches long,  $2\frac{1}{4}$  inches wide,  $\frac{1}{8}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. For doors  $1\frac{3}{4}$  to 2 inches thick. Packed one pair of hangers with carriage bolts, one patented lock joint and two end brackets with  $\frac{7}{16} \times 2\frac{1}{2}$  inch lag screws, and two patented track stops with  $\frac{3}{8} \times 1\frac{1}{2}$  inch lag screws, for end brackets (see page 194), in metal-edge box. (One adjusting wrench is furnished with No. 921 Hanger). No. 521 Hangers, weight per pair  $8\frac{1}{2}$  lbs. No. 921 Hangers; Adjustment, lateral and vertical, weight, per pair  $9\frac{1}{2}$  lbs. Track, per foot, 2.1 lbs.; Brackets, each, 1 lb.

### List Price

No. 521 Hangers, with two end and one lock joint bracket. Per pair.....	Black	*Galvanized
No. 521 Hangers, less brackets. Per pair.....	\$2.30	\$2.70
	1.85	2.05
No. 921 Hangers, with two end and one lock joint bracket. Per pair.....	2.40	2.70
No. 921 Hangers, less brackets. Per pair.....	1.95	2.15
No. 35 Track, 4, 6, 8 and 10-foot lengths, (8 pieces to bundle). (See page 193). Per foot.....	.25	.29
Extra, No. 1 x 31 Brackets, with lag screws. Each.....	.21	.25

\*Exposed parts of Hangers only are galvanized.

Note—Specify on order if extra Brackets are desired. For other types of Brackets, see page 194.

Discount.....

**Brackets should be spaced not to exceed 30-inch centers.**



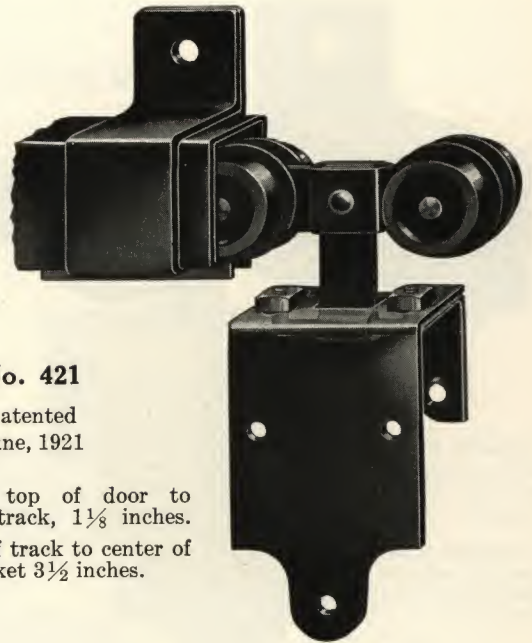
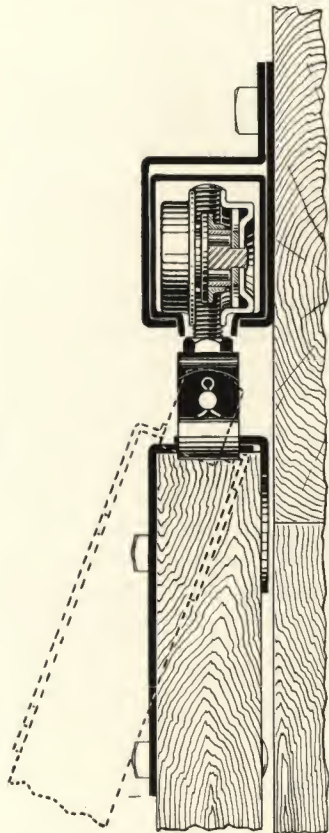
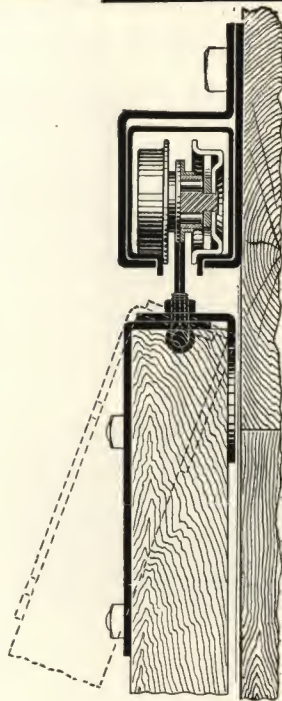
**R-W No. 421**  
**"Corn Belt"**  
 and  
**R-W No. 721**  
**"Flexajust"**

## Barn Door Hangers

**Roller-Bearing**  
**For Doors Weighing**  
**Up to 300 Pounds**

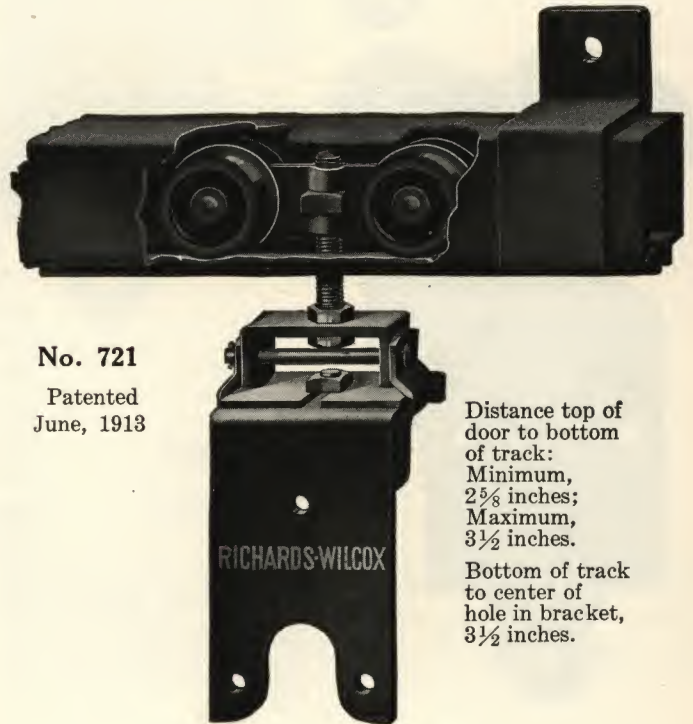
See  
 Previous Page  
 for  
 Full-Sized  
 Cross-Section  
 of  
 Track

Wheels, steel,  $2\frac{1}{4}$  inches diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Flexible joint. Aprons, galvanized, 6 inches long,  $3\frac{1}{2}$  inches wide,  $\frac{1}{8}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. For doors  $1\frac{3}{4}$  to  $2\frac{1}{2}$  inches thick. Packed one pair of hangers with carriage and stove bolts, one patented lock joint and two end brackets with  $\frac{7}{16} \times 2\frac{1}{2}$  inch lag screws, and two patented track stops with  $\frac{3}{8} \times 1\frac{1}{2}$  inch lag screws for end brackets, (See page 194), in metal-edge box. (One adjusting wrench is furnished with No. 721 Hanger). No. 421 Hangers: Adjustment, lateral only, weight, per pair, 9 lbs. No. 421 Hanger is made to run in No. 35 track only. If hanger is wanted to run in No. 36 track see No. 399 x 36 Hanger described on page 203. No. 721 Hangers: Adjustment, lateral and vertical, weight 10½ lbs. Track, per foot, 2 lbs.; Brackets, each 1 lb.



**No. 421**  
 Patented  
 June, 1921

Distance top of door to  
 bottom of track,  $1\frac{1}{8}$  inches.  
 Bottom of track to center of  
 hole in bracket  $3\frac{1}{2}$  inches.



**No. 721**  
 Patented  
 June, 1913

Distance top of  
 door to bottom  
 of track:  
 Minimum,  
 $2\frac{5}{8}$  inches;  
 Maximum,  
 $3\frac{1}{2}$  inches.  
 Bottom of track  
 to center of  
 hole in bracket,  
 $3\frac{1}{2}$  inches.

### List Price

	Black	*Galvanized
No. 421 Hangers, with two end and one lock joint bracket. Per pair.....	\$2.30	\$2.60
No. 421 Hangers, less brackets. Per pair.....	1.85	2.05
No. 721 Hangers, with two end and one lock joint bracket. Per pair.....	2.40	2.70
No. 721 Hangers, less brackets. Per pair.....	1.95	2.15
No. 35 Track, 4, 6, 8 and 10-foot lengths, (8 pieces to bundle). (See page 193). Per foot.....	.25	.29
Extra, No. 1 x 31 Brackets, with lag screws. Each.....	.21	.25

\*Exposed parts of hangers only are galvanized.

**Note**—Specify on order if extra brackets are desired. For other types of brackets see page 194.

**Discount**.....

**Brackets should be spaced not to exceed 30-inch centers.**

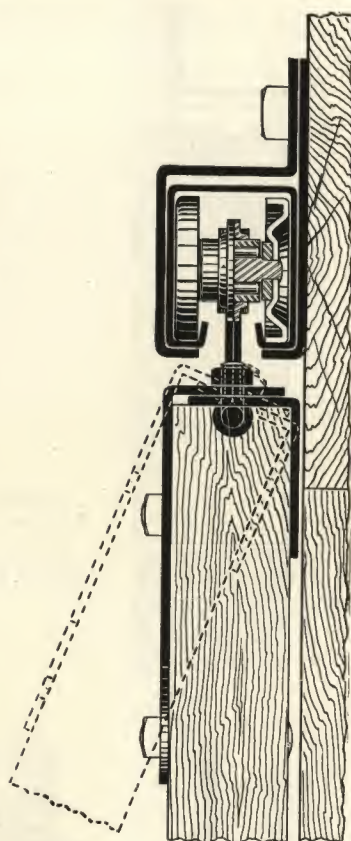




Distance top of door to bottom of track,  $\frac{7}{8}$  inches.

Bottom of track to center of hole in bracket,  $3\frac{1}{2}$  inches.

**No. 20**  
Patented  
June, 1921



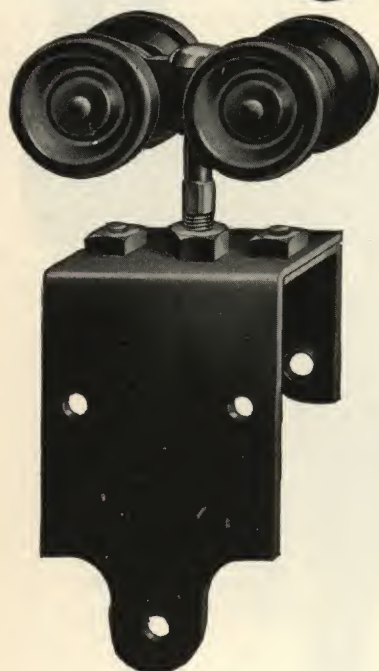
**R-W No. 20**  
**"Gem"**  
**R-W No. 20-2**

## Barn Door Hangers

Roller-Bearing

For Doors Weighing  
Up to 300 Pounds

See  
Next Page  
for  
Full Sized  
Cross-Section  
of  
Track



**No. 20-2**

Distance top of door to bottom of track:  
Minimum,  $1\frac{3}{8}$  inches;  
Maximum,  $2\frac{5}{8}$  inches.

Bottom of track to center of hole in bracket,  $3\frac{1}{2}$  inches.

Wheels, pressed steel,  $2\frac{1}{8}$  inches diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Aprons, 6 inches long,  $3\frac{1}{2}$  inches wide,  $\frac{1}{8}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. For doors  $1\frac{3}{4}$  to  $2\frac{1}{2}$  inches thick. Packed one pair of hangers with carriage and stove bolts, one patented lock joint and two end brackets with  $\frac{7}{16}$  x  $2\frac{1}{2}$  inch lag screws and two patented track stops with  $\frac{3}{8}$  x  $1\frac{1}{2}$  inch lag screws for end brackets (see page 194), in metal-edge box. No. 20 Hangers: Adjustment, lateral only, weight per pair, 8 lbs. No. 20-2 Hangers: Adjustment, vertical and lateral, weight per pair,  $8\frac{1}{2}$  lbs.; Track, per foot,  $1\frac{2}{3}$  lbs.; Brackets, each, 1 lb.

### List Price

No. 20 Hangers, with two end and one lock joint bracket. Per pair .....	Black \$2.30	*Galvanized \$2.60
No. 20 Hangers, less brackets. Per pair .....	1.85	2.05
No. 20-2 Hangers with two end and one lock joint bracket. Per pair .....	2.50	2.80
No. 20-2 Hangers, less brackets. Per pair .....	2.05	2.25
No. 31 Track, 4, 6, 8 and 10-foot lengths (8 pieces to bundle), see page 193. Per foot .....	.25	.29
Extra, No. 1 x 31 brackets, with lag screws. Each .....	.21	.25

\*Exposed parts of hangers only are galvanized.

Note—Specify on order if extra brackets are desired. For other types of brackets see page 194.

Discount.....

**Brackets should be spaced not to exceed 30-inch centers.**

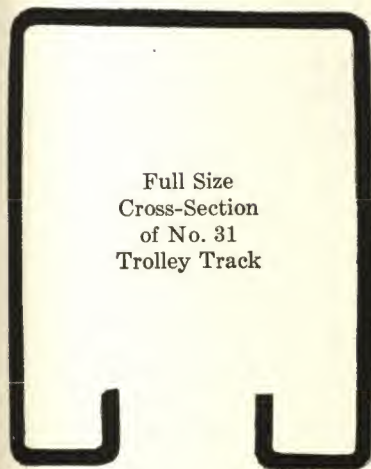


R-W No. 20½-B

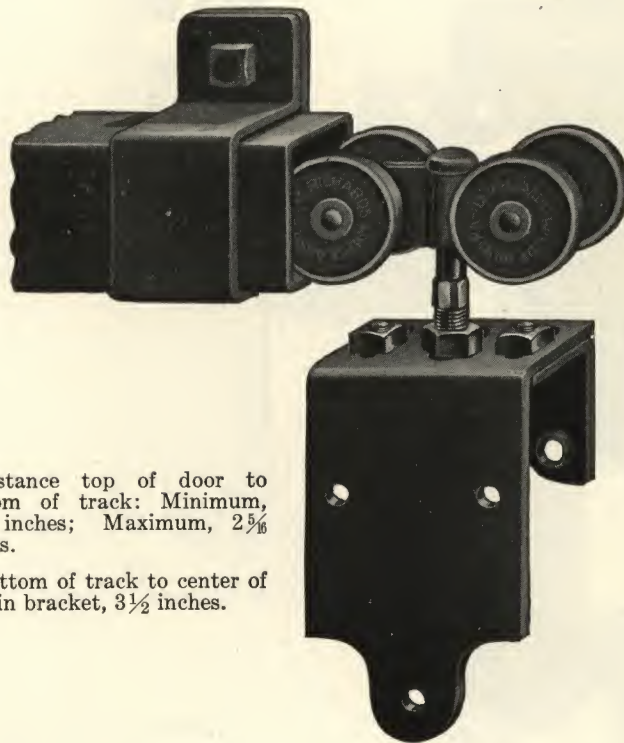
## "Stayrite" Barn Door Hanger

Ball-Bearing

For Doors Weighing Up to 300 Pounds

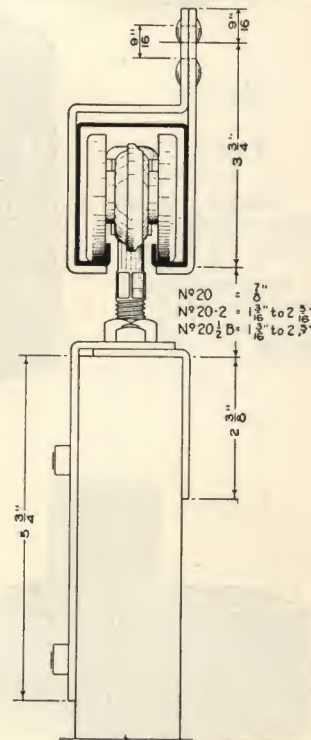


Full Size  
Cross-Section  
of No. 31  
Trolley Track



Distance top of door to  
bottom of track: Minimum,  
1 3/16 inches; Maximum, 2 5/16  
inches.

Bottom of track to center of  
hole in bracket, 3 1/2 inches.



### No. 20½-B

Wheels, drop forged steel, 2 1/8 inches diameter. Hardened drop forged steel frames and ball bearings. Finish, black enamel or galvanized. Adjustment, lateral and vertical. Apron, 6 inches long, 3 1/2 inches wide, 1/8 inch thick, punched for 5/16 inch bolts. For doors 1 3/4 to 2 1/2 inches thick. Packed one pair of hangers with carriage

and stove bolts; one patented lock joint and two end brackets with 7/16 x 2 1/2 inch lag screws, and two patented track stops with 3/8 x 1 1/2 inch lag screws for end brackets (see page 194), in metal-edge box. Weight: Hangers, per pair, 10 1/2 lbs.; track, per foot, 1.6 lbs.; brackets each, 1 lb.

### List Price

		Black	*Galvanized
No. 20½ B Hangers, with two end and one lock joint bracket.	Per pair	\$4.00	\$4.20
No. 20½ B Hangers, less brackets.	Per pair	3.00	3.20
No. 31 Track, 4, 6, 8 and 10-foot lengths, (8 pieces to bundle).	Per foot	.25	.29
Extra, No. 1 x 31 Brackets, with lag screws.	Each	.21	.25

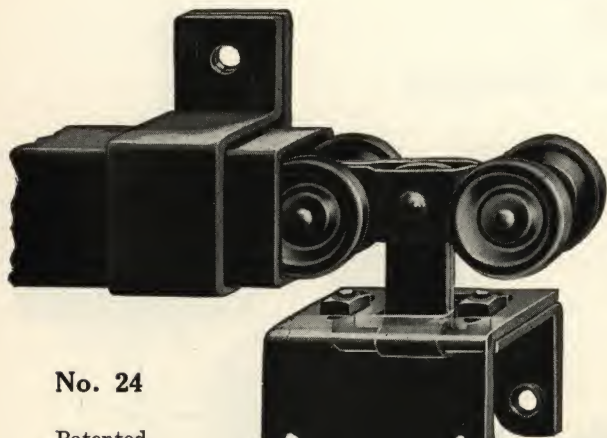
\*Exposed parts of hangers only are galvanized.

Note—Specify on order if extra brackets are desired. For other types of brackets see page 194.

**Brackets should be spaced not to exceed 30-inch centers.**

Discount.....





**No. 24**

Patented

Distance top of door to bottom of track,  $1\frac{1}{16}$  inches.

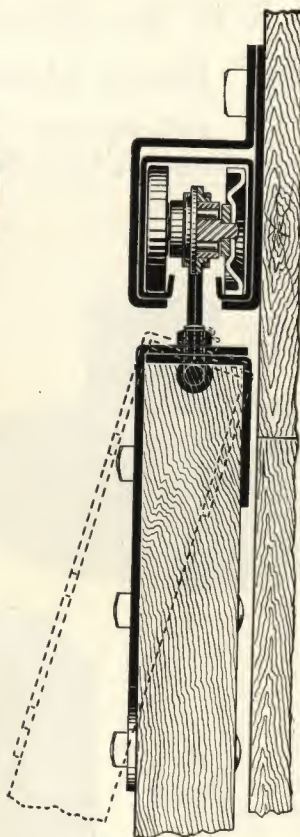
Bottom of track to center of hole in bracket  $3\frac{1}{2}$  inches.



**No. 25**

Distance top of door to bottom of track: Minimum,  $1\frac{3}{16}$  inches; Maximum,  $2\frac{3}{16}$  inches.

Bottom of track to center of hole in bracket.  $3\frac{1}{2}$  inches.



**R-W No. 24**  
**"Superior"**  
 and  
**R-W No. 25**  
**"Peerless"**

## Warehouse Door Hangers

Roller-Bearing

**Made in Two Sizes—  
For Doors Weighing  
Up to 300 Pounds**

See  
Next Page  
for  
Full Page  
Cross-Section  
of  
Track

### Description

Wheels, steel,  $2\frac{1}{8}$  inches diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Aprons,  $7\frac{1}{2}$  inches long, 4 inches wide,  $9/64$  inch thick, punched for  $5/16$  inch bolts. No. 24 Hangers: Adjustment, lateral only. No. 1 for doors  $1\frac{3}{4}$  to 2 inches; No. 2 for doors  $2\frac{1}{4}$  to  $2\frac{3}{4}$  inches. No. 25 Hangers: Adjustment, lateral and vertical. No. 1 for doors  $1\frac{3}{4}$  to 2 inches thick; No. 2 for doors  $2\frac{1}{4}$  to  $2\frac{3}{4}$  inches thick. Nos. 24 and 25 Hangers packed one pair of hangers with carriage and stove bolts, one patented lock joint and two end brackets with  $7/16$  x  $2\frac{1}{2}$  inch lag screws and two patented track stops with  $3/8$  x  $1\frac{1}{2}$  inch lag screws for end brackets, (see page 194), in metal-edge box. Weight: Hangers, per pair, 11 lbs.; track, per foot, 1 lb.; brackets, each, 1 lb.

### List Price

	Black	*Galvanized
No. 24-1 or 2 Hangers with two end and one lock joint bracket. Per pair.....	\$2.60	\$3.00
No. 24-1 or 2 Hangers, less brackets. Per pair.....	2.15	2.45
No. 25-1 or 2 Hangers, with two end and one lock joint bracket. Per pair.....	2.70	3.10
No. 25-1 or 2 Hangers, less brackets. Per pair.....	2.25	2.55
No. 31 Track, 4, 6, 8 and 10-foot lengths, (8 pieces to bundle), (see page 193). Per foot.....	.25	.29
Extra, No. 1 x 31 Brackets, with lag screws. Each.....	.21	.25

\*Exposed parts of hangers only are galvanized.

**Note**—Specify on order if extra brackets are desired. For other types of brackets see page 194.

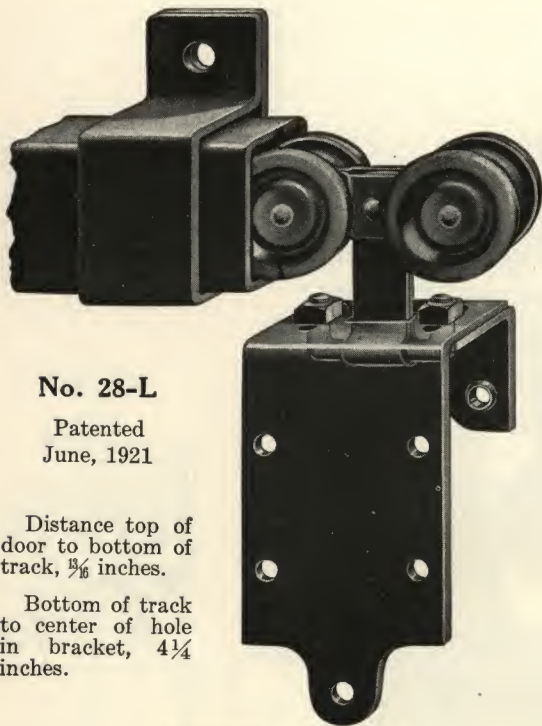
*Discount*.....

**Brackets should be spaced not to exceed 30-inch centers.**







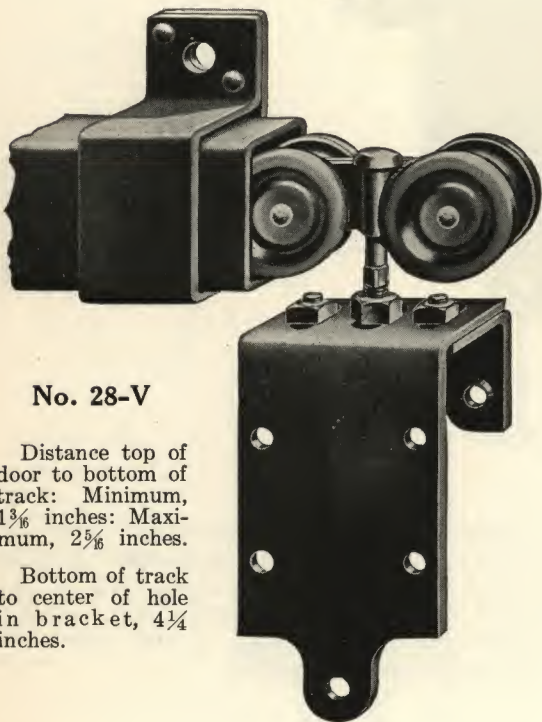
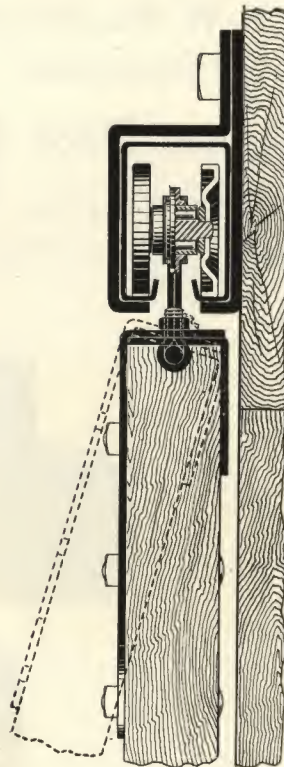


**No. 28-L**

Patented  
June, 1921

Distance top of  
door to bottom of  
track,  $\frac{5}{16}$  inches.

Bottom of track  
to center of hole  
in bracket,  $4\frac{1}{4}$   
inches.



**No. 28-V**

Distance top of  
door to bottom of  
track: Minimum,  
 $1\frac{3}{16}$  inches: Maxi-  
mum,  $2\frac{5}{16}$  inches.

Bottom of track  
to center of hole  
in bracket,  $4\frac{1}{4}$   
inches.

R-W No. 28 L  
"Acme"  
and  
R-W No. 28 V  
"Premium"

## Warehouse Door Hangers

Roller-Bearing

Made In Two Sizes—  
For Doors Weighing  
Up to 400 Pounds

See next page  
for full size  
cross-section  
of Track

### Description

Wheels, steel,  $2\frac{1}{2}$  inches diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Apron,  $7\frac{1}{2}$  inches long, 4 inches wide  $\frac{3}{4}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. No. 1 for doors  $1\frac{3}{4}$  to 2 inches; No. 2 for doors,  $2\frac{1}{4}$  to  $2\frac{3}{4}$  inches thick. No. 28L Hangers: Adjustment, lateral only. No. 28V Hangers: Adjustment, lateral and vertical. Packed one pair of hangers with carriage and stove bolts in metal-edge box. Weight: hangers, per pair, 10 lbs.; track, per foot, 2.4 lbs.; brackets, each,  $1\frac{1}{2}$  lbs.

### List Price

	Black	*Galvanized
No. 28L-1 or 2 Hangers, less brackets, lateral adjustment only. Per pair.....	\$3.00	\$3.40
No. 28V-1 or 2 Hangers, less brackets, vertical and lateral adjustments. Per pair.....	3.20	3.60
No. 32 Track, 4, 6, 8 and 10-foot lengths, (6 pieces to bundle). See page 193. Per foot.....	.37	.42
No. 1 x 32 Center Brackets, less lag screws. Each.....	.37	.42
No. 2 x 32 End Brackets, less lag screws. Each.....	.37	.42

\*Exposed parts of Hangers only are galvanized.

Note—Specify Brackets by number. For other types of Brackets, see page 194.

*For heavy doors, brackets should be spaced not to exceed 24-inch centers.*

Discount.....



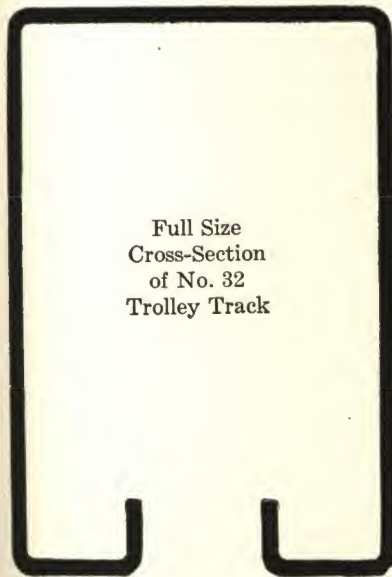
R-W No. 28½-B

"Supreme"

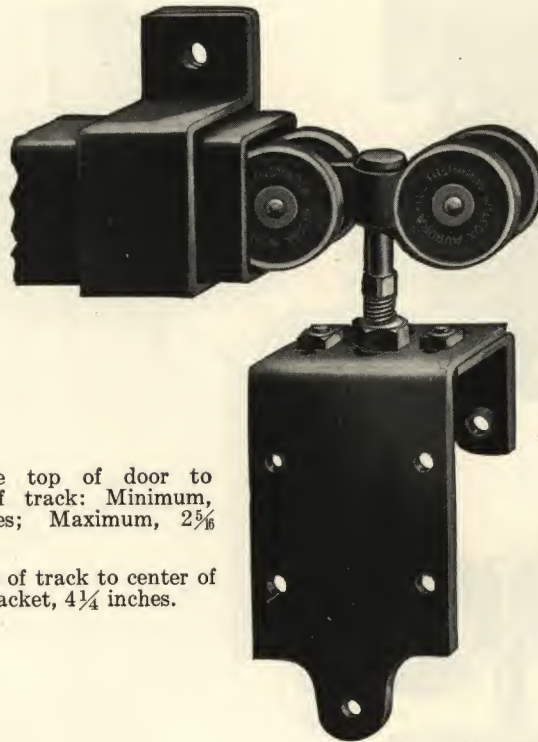
## Warehouse Door Hangers

Ball-Bearing

Made in Two Sizes—For Doors Weighing Up to 400 Pounds

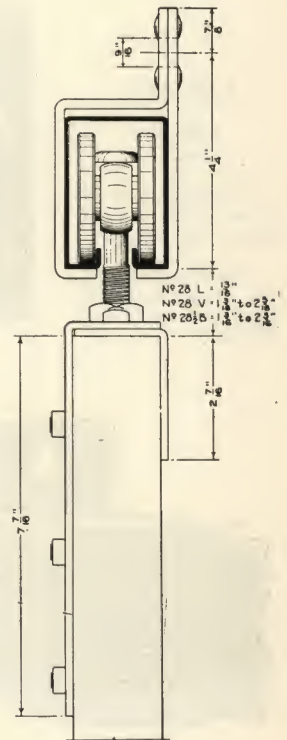


Full Size  
Cross-Section  
of No. 32  
Trolley Track



Distance top of door to  
bottom of track: Minimum,  
1⅜ inches; Maximum, 2⅝  
inches.

Bottom of track to center of  
hole in bracket, 4¼ inches.



### No. 28½-B

Wheels, drop forged steel, 2½ inches diameter. Hardened drop forged steel frames. Ball bearings. Finish, black enamel or galvanized. Adjustment, lateral and vertical. Apron, 7½ inches long, 4 inches wide, 9/64 inch thick, punched for 5/16 inch bolts. No. 1 for doors 1¾ to 2 inches;

No. 2 for doors 2¼ to 2¾ inches thick. Packed one pair of hangers with carriage and stove bolts in metal-edge box. Weight: hangers, per pair, 10 lbs.; track, per foot, 2.4 lbs.; brackets, each, 1½ lbs.

### List Price

	Black	*Galvanized
No. 28½ B-1 or 2 Hangers, less brackets. Per pair.....	\$5.50	\$6.00
No. 28½ B-1 or 2 Knuckle-joint Hangers, less brackets, (for curved track). Per pair.....	8.00	8.75
No. 32 Track, 4, 6, 8 and 10-foot lengths, (6 pieces to bundle). Per foot.....	.37	.42
No. 1 x 32 Center Brackets, less lag screws. Each.....	.37	.42
No. 2 x 32 End Brackets, less lag screws. Each.....	.37	.42

Discount.....

\*Exposed parts of hangers only are galvanized.

Note—Always specify brackets by number. For other types of brackets, see page 194.

*For heavy doors, brackets should be spaced not to exceed 24-inch centers*



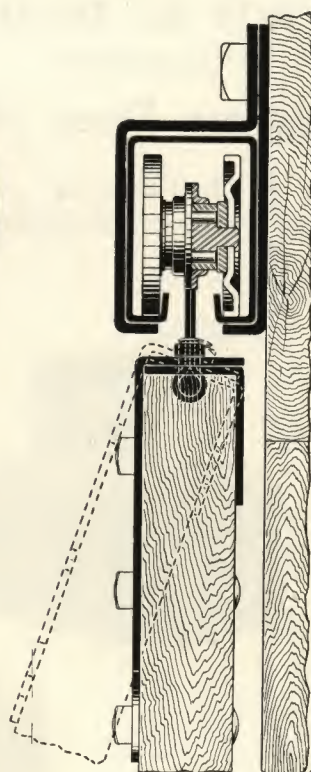


**No. 29-L**

Patented  
June, 1921

Distance top of  
door to bottom of  
track,  $\frac{15}{16}$  inches.

Bottom of track  
to center of hole  
in bracket,  $4\frac{1}{16}$   
inches.



**No. 29-V**

Distance top of  
door to bottom of  
track: Minimum,  
 $1\frac{1}{8}$  in. Maximum,  
 $2\frac{1}{2}$  in.

Bottom of track  
to center of hole  
in bracket,  $4\frac{1}{16}$   
inches.

R-W No. 29 L  
"Hercules"  
and  
R-W No. 29 V  
"Economy"

## Warehouse Door Hangers

Roller-Bearing  
Made in Two Sizes—  
For Doors Weighing  
Up to 600 Pounds

See  
Next Page  
for  
Full Size  
Cross Section  
of Track

### Description

Wheels, steel, 3 inches diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Apron,  $7\frac{1}{2}$  inches long, 4 inches wide,  $\frac{3}{4}$  inch thick, punched for  $\frac{5}{16}$  inch bolts. No. 1 for doors  $1\frac{3}{4}$  to 2 inches, No. 2 for doors  $2\frac{1}{4}$  to  $2\frac{3}{4}$  inches thick. No. 29L Hangers: Adjustment, lateral only. No. 29V Hangers: Adjustment, vertical and lateral. Packed one pair of hangers with carriage and stove bolts in metal-edge box. Weight: hangers, per pair, 14 lbs.; track, per foot, 2.8 lbs.; brackets, each, 2 lbs.

### List Price

	Black	*Galvanized
No. 29L-1 or 2 Hangers, less brackets, lateral adjustment only. Per pair.....	\$4.50	\$5.50
No. 29V-1 or 2 Hangers, less brackets, vertical and lateral adjustments. Per pair.....	4.60	5.60
No. 232 Track, 4, 6, 8 and 10-foot lengths, (4 pieces to bundle). See page 193. Per foot.....	.45	.60
No. 1 x 232 Center Brackets, less lag screws. Each.....	.45	.55
No. 2 x 232 End Brackets, less lag screws. Each.....	.45	.55

\*Exposed parts of hangers only are galvanized.

Note—Always specify brackets by number. For other types of brackets, see page 194.

Discount.....

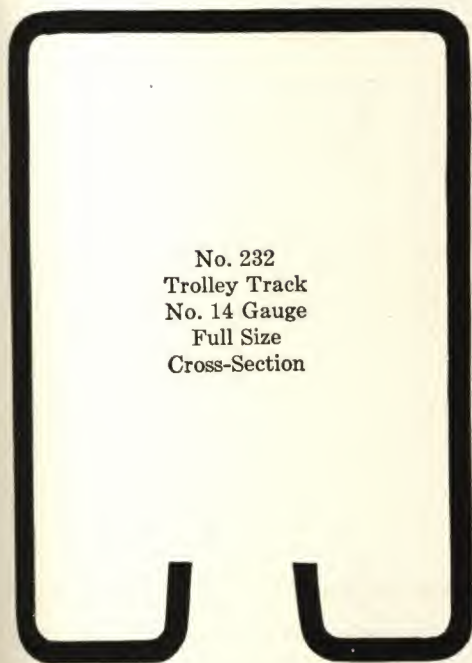
**For heavy doors, brackets should be spaced not to exceed 24-inch centers.**



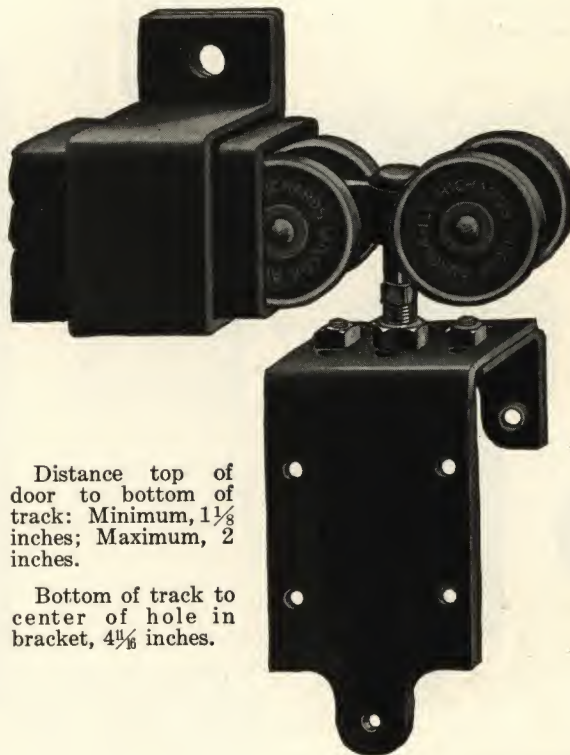
## R-W No. 29½-B "No Fault" Warehouse Door Hangers

Ball-Bearing

Made in Two Sizes—For Doors Weighing Up to 600 Pounds

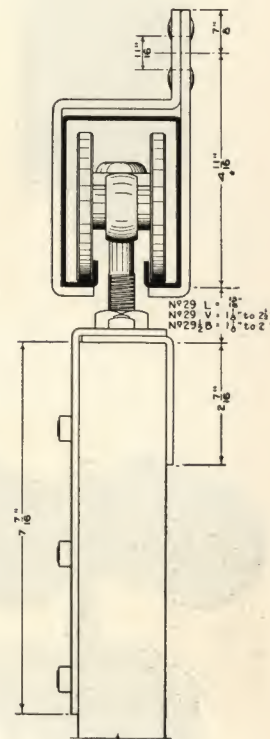


No. 232  
Trolley Track  
No. 14 Gauge  
Full Size  
Cross-Section



Distance top of door to bottom of track: Minimum, 1½ inches; Maximum, 2 inches.

Bottom of track to center of hole in bracket, 4⅞ inches.



### No. 29½-B

Wheels, drop forged steel, 3 inches diameter. Hardened drop forged steel frames. Ball bearings. Finish, black enamel or galvanized. Adjustment, lateral and vertical. Apron, 7½ inches long, 4 inches wide, ⅜ inch thick, punched for ⅝ inch bolts. No. 1 for doors 1¾ to 2 inches,

No. 2 for doors 2¼ to 2¾ inches thick. Packed one pair of hangers with carriage and stove bolts in metal-edge box. Weight: hangers, per pair, 12 lbs.; track, per foot, 2.8 lbs.; brackets, each, 2 lbs.

### List Price

	Black	*Galvanized
No. 29½ B-1 or 2 Hangers, less brackets. Per pair.....	\$6.50	\$6.80
No. 29½ B-1 or 2 Knuckle-joint Hangers, less brackets, (for curved track). Per pair.....	8.80	9.50
No. 232 Track, 4, 6, 8 and 10-foot lengths, (4 pieces to bundle). Per foot.....	.45	.60
No. 1 x 232 Center Brackets, less lag screws. Each.....	.45	.55
No. 2 x 232 End Brackets, less lag screws. Each.....	.45	.55

Discount.....

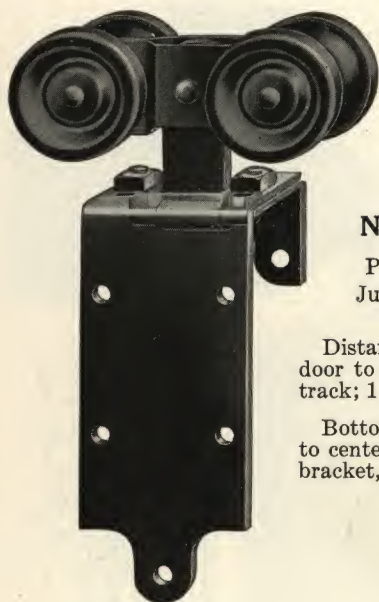
\*Exposed parts of hangers only are galvanized.

Note—Always specify brackets by number. For other types of brackets, see page 194.

**For heavy doors, brackets should be spaced not to exceed 24-inch centers.**

**Buildings with concrete ceilings often require Concrete Inserts (see page 456)**



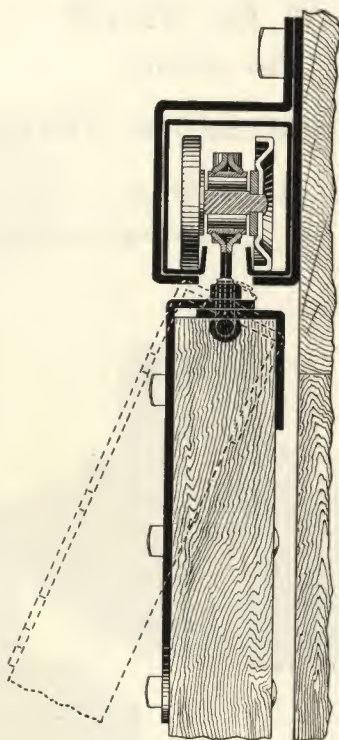


**No. 120**

Patented  
June, 1921

Distance top of  
door to bottom of  
track;  $1\frac{1}{8}$  inches.

Bottom of track  
to center of hole in  
bracket, 5 inches.



**No. 121**

Distance top of  
door to bottom of  
track: Minimum,  
 $1\frac{1}{4}$  inches; Maxi-  
mum,  $2\frac{3}{8}$  inches.

Bottom of track  
to center of hole  
in bracket, 5  
inches.

**R-W No. 120**  
**"King"**  
and  
**R-W No. 121**  
**"Samson"**

## Warehouse Door Hangers

Roller-Bearing

Made In Two Sizes—  
For Doors Weighing  
Up to 800 Pounds

See  
Next Page  
for  
Full Size  
Cross Section  
of Track

### Description

Wheels, steel, 3 inches diameter. Bearings, steel rollers. Finish, black enamel or \*galvanized. Apron  $9\frac{1}{2}$  inches long, 4 inches wide,  $\frac{3}{16}$  inch thick, punched for  $\frac{3}{8}$  inch bolts. No. 1 for doors  $1\frac{3}{4}$  to 2 inches, No. 2 for doors  $2\frac{1}{4}$  to 3 inches thick. For 3 inch doors, back apron must be sunk into door flush. No. 120 Hangers: Adjustment, lateral only. No. 121 Hangers: Adjustment, lateral and vertical. Packed one pair of hangers with carriage and stove bolts in wood box. Weight: hangers, per pair, 18 lbs.; track, per foot, 4 lbs.; brackets, each  $2\frac{1}{2}$  lbs.

### List Price

	Black	*Galvanized
No. 120-1 or 2 Hangers, less brackets, lateral adjustment only. Per pair.....	\$5.60	\$7.50
No. 121-1 or 2 Hangers, less brackets, vertical and lateral adjustment. Per pair.....	6.75	7.80
No. 33 Track, 4, 6, 8 and 10-foot lengths (4 pieces to bundle). Per foot.....	.58	.75
No. 1 x 33 Center Brackets, less lag screws. Each.....	.58	.70
No. 2 x 33 End Brackets, less lag screws. Each.....	.58	.70

\*Exposed parts of hangers only are galvanized.

**Note**—Always specify brackets by number. For other types of brackets see page 194.

**For heavy doors, brackets should be spaced not to exceed 24-inch centers**

Discount.....



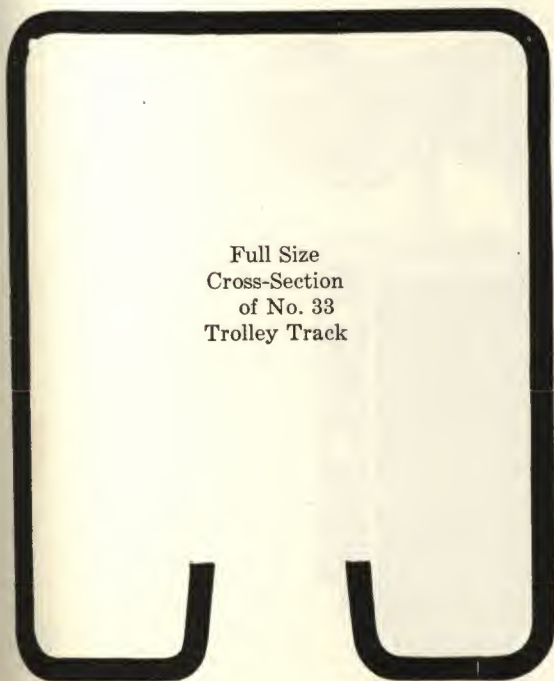
R-W No. 123½-B

"Victor"

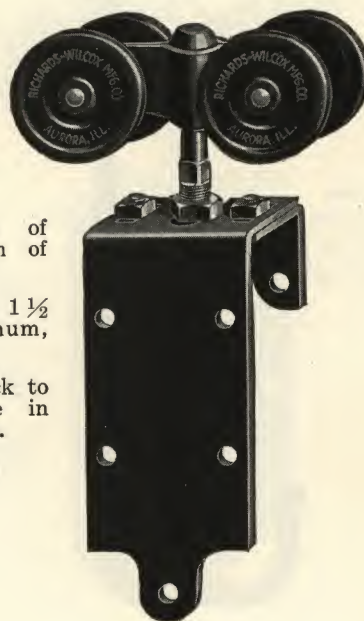
## Warehouse Door Hangers

Ball-Bearing

Made in Two Sizes—For Doors Weighing Up to 800 Pounds



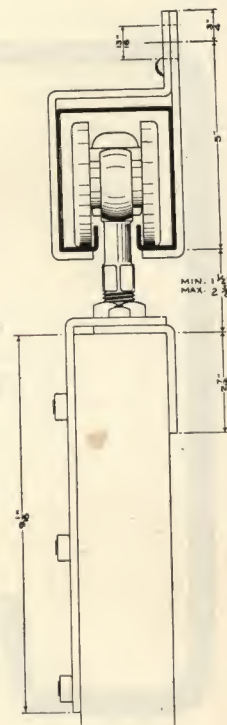
Full Size  
Cross-Section  
of No. 33  
Trolley Track



Distance top of  
door to bottom of  
track:

Minimum, 1½  
inches; Maximum,  
2¾ inches.

Bottom of track to  
center of hole in  
bracket, 5 inches.



### No. 123½-B

Wheels, drop forged steel, 3 inches diameter. Hardened drop forged steel frames. Ball-bearing. Finish, black enamel or \*galvanized. Adjustment, lateral and vertical. Apron, 9½ inches long, 4 inches wide, ⅜ inch thick, punched for ⅜ inch bolts. No. 1 for doors 1¾ to 2 inches,

No. 2 for doors 2¼ to 3 inches thick. For 3 inch doors, back apron must be sunk into door flush. Packed one pair of hangers with carriage and stove bolts in wood box. Weight: hangers, per pair, 19 lbs.; track, per foot, 4 lbs.; brackets, each 2½ lbs.

### List Price

	Black	*Galv.
No. 123½ B-1 or 2 Hangers, less brackets. Per pair.....	\$8.25	\$9.50
No. 123½ B-1 or 2 Knuckle-joint Hangers, less brackets (for curved track). Per pair.....	11.00	12.00
No. 33 Track, 4, 6, 8 and 10-foot lengths (4 pieces to bundle). Per foot.....	.58	.75
No. 1 x 33 Center Brackets, less lag screws. Each.....	.58	.70
No. 2 x 33 End Brackets, less lag screws. Each.....	.58	.70

Discount.....

\*Exposed parts of hangers only are galvanized.

Note—Always specify brackets by number. For other types of brackets, see page 194.

*For heavy doors, brackets should be spaced not to exceed 24-inch centers*



R-W No. 150

"Jumbo"

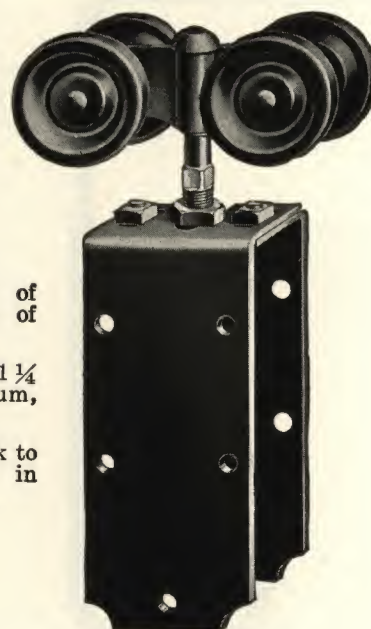
## Wharf & Warehouse Door Hangers

Roller-Bearing

Made in Two Sizes—For Doors Weighing Up to 800 Pounds



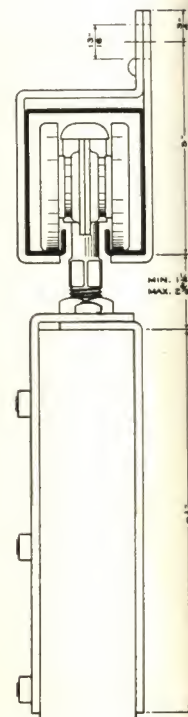
Full Size  
Cross Section  
of No. 33  
Trolley Track



Distance top of  
door to bottom of  
track:

Minimum,  $1\frac{1}{4}$   
inches; maximum,  
 $2\frac{3}{8}$  inches

Bottom of track to  
center of hole in  
bracket, 5 inches.



### No. 150

Wheels, steel, 3 inches diameter. Bearings, steel rollers. Finish, black enamel or \*galvanized. Adjustment, lateral and vertical. Apron  $9\frac{1}{2}$  inches long, 4 inches wide,  $\frac{3}{16}$  inch thick, punched for  $\frac{3}{8}$  inch bolts. No. 1 for doors  $1\frac{3}{4}$  to 2 inches, No. 2 for doors  $2\frac{1}{4}$  to  $3\frac{1}{2}$  inches thick. Packed one pair of hangers with stove bolts in wood box.

No. 2 size hangers are regularly packed with bolts long enough for doors  $2\frac{3}{4}$  inches thick. When they are to be used on thicker doors, specify when ordering. Weight: hangers, per pair, 21 lbs.; track, per foot, 4 lbs.; brackets, each,  $2\frac{1}{2}$  lbs.

### List Price

	Black	*Galvanized
No. 150-1 or 2 Hangers, less brackets. Per pair.....	\$6.25	\$7.25
No. 33 Track, 4, 6, 8 and 10-foot lengths (4 pieces to bundle). Per foot.....	.58	.75
No. 1 x 33 Center Brackets, less lag screws. Each.....	.58	.70
No. 2 x 33 End Brackets, less lag screws. Each.....	.58	.70

Discount.....

\*Exposed parts of hangers only are galvanized.

Note—Always specify brackets by number. For other types of brackets, see page 194.

**For heavy doors, brackets should be spaced not to exceed 24-inch centers.**



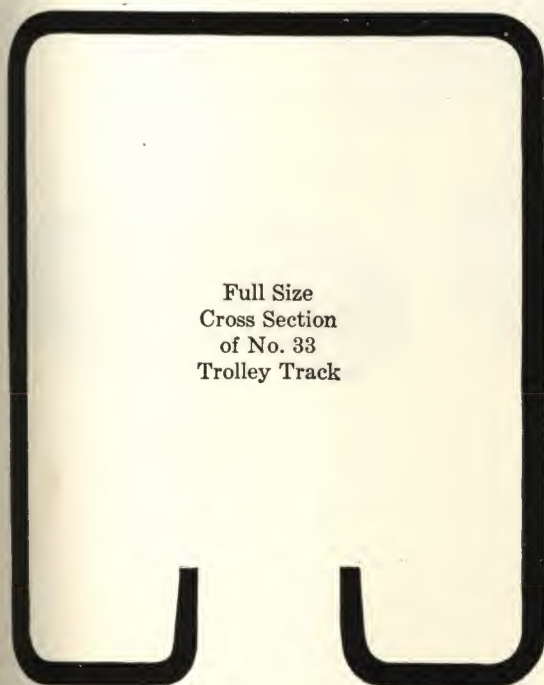
R-W No. 150 $\frac{1}{2}$ -B

"Overall"

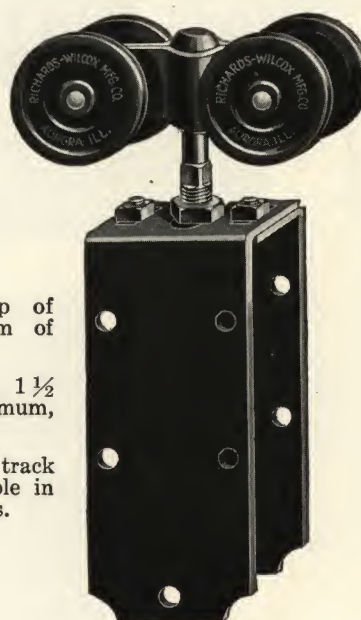
## Wharf & Warehouse Door Hangers

Ball-Bearing

Made in Two Sizes—For Doors Weighing Approximately 800 Pounds



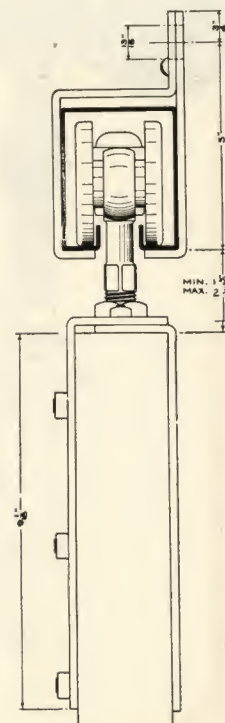
Full Size  
Cross Section  
of No. 33  
Trolley Track



Distance top of  
door to bottom of  
track:

Minimum, 1  $\frac{1}{2}$   
inches; Maximum,  
2  $\frac{5}{8}$  inches.

Bottom of track  
to center of hole in  
bracket, 5 inches.



### No. 150 $\frac{1}{2}$ -B

Wheels, drop forged steel, 3 inches diameter. Hardened drop forged steel frames. Ball-bearings. Finish, black enamel or \*galvanized. Adjustment, lateral and vertical. Apron, 9  $\frac{1}{2}$  inches long, 4 inches wide,  $\frac{3}{8}$  inch thick, punched for  $\frac{3}{8}$  inch bolts. No. 1 for doors 1  $\frac{3}{4}$  to 2 inches, No. 2 for doors, 2  $\frac{1}{4}$  to 3  $\frac{1}{2}$  inches thick. Packed one pair

of hangers with stove bolts in wood box. No. 2 size hangers are regularly packed with bolts long enough for doors 2  $\frac{3}{4}$  inches thick. When they are to be used on thicker doors, specify when ordering. Weight: hangers, per pair, 21 lbs.; track, per foot, 4 lbs.; brackets each, 2  $\frac{1}{2}$  lbs.

### List Price

	Black	*Galvanized
No. 150 $\frac{1}{2}$ B-1 or 2 Hangers, less brackets. Per pair.....	\$ 8.50	\$10.00
No. 150 $\frac{1}{2}$ B-1 or 2 Knuckle-joint Hangers, less brackets. Per pair.....	11.50	12.25
No. 33 Track, 4, 6, 8 and 10-foot lengths (4 pieces to bundle). Per foot.....	.58	.75
No. 1 x 33 Center Brackets, less lag screws. Each.....	.58	.70
No. 2 x 33 End Brackets, less lag screws. Each.....	.58	.70

Discount.....

\*Exposed parts of hangers only are galvanized.

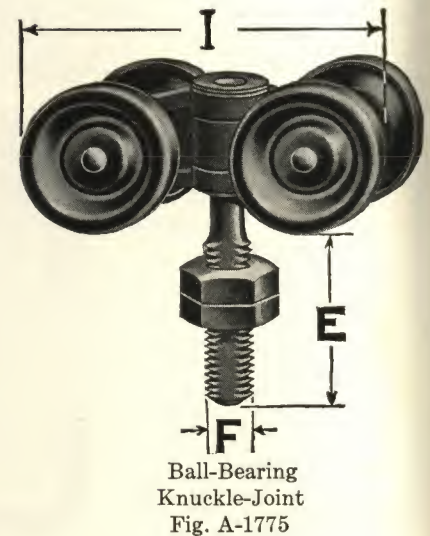
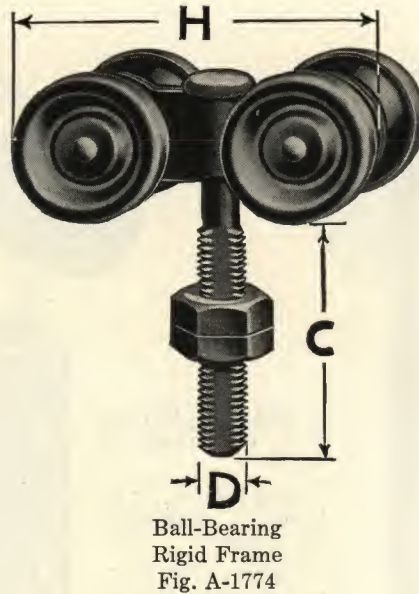
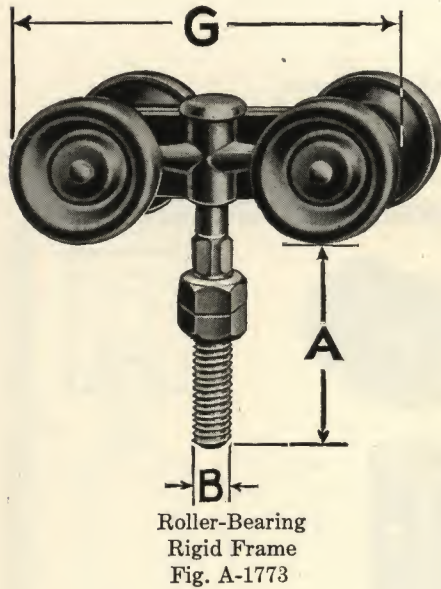
Note—Always specify brackets by number. For other types of brackets see page 194.

**For heavy doors, brackets should be spaced not to exceed 24-inch centers.**



## R-W Trolley Trucks

Roller-Bearing, Ball-Bearing, Knuckle-Jointed for Nos. 31, 32, 33 and 232 Trolley Tracks



### List Price of Trolley Trucks for No. 31 Track

No. 20½B—Rigid Frame Trucks only, ball-bearing (as illustrated) C=2¾", D=1½", H=5", per pair.....	\$3.00
No. 20-2—Rigid Frame Trucks only, roller-bearing (as illustrated) A=2¾", B=1½", G=4¾", per pair.....	2.00
No. 25—Rigid Frame Truck only, roller-bearing (as illustrated) A=2¾", B=5⁄8", G=6", per pair.....	2.50
No. 27½B—Rigid Frame Trucks only, ball-bearing (as illustrated) C=2¾", D=5⁄8", H=5", per pair.....	3.50
No. 27½B—Knuckle-Joint Trucks only, ball-bearing (as illustrated) E=2½", F=5⁄8", I=5", per pair.....	5.50

### List Price of Trolley Trucks for No. 32 Track

No. 28V—Rigid Frame Trucks only, roller-bearing (as illustrated) A=3", B=5⁄8", G=6¼", per pair.....	3.50
No. 28½B—Rigid Frame Trucks only, ball-bearing (as illustrated) C=2⅞", D=5⁄8", H=6¼", per pair.....	4.50
No. 28½B—Knuckle-Joint Trucks only, ball-bearing (as illustrated) E=2⅞", F=5⁄8", I=5½", per pair.....	6.00

### List Price of Trolley Trucks for No. 33 Track

No. 121—Rigid Frame Trucks only, roller-bearing (as illustrated) A=3¼", B=¾", G=7½", per pair.....	5.00
No. 123½B—Rigid Frame Trucks only, ball-bearing (as illustrated) C=3⅞", D=¾", H=7½", per pair.....	6.50
No. 123½B—Knuckle-Joint Trucks only, ball-bearing (as illustrated) E=3½", F=¾", I=6¾", per pair.....	9.00

### List Price of Trolley Trucks for No. 232 Track

No. 29V—Rigid Frame Trucks only, roller-bearing (as illustrated) A=3⅞", B=5⁄8", G=7½", per pair.....	4.50
No. 29½B—Rigid Frame Trucks only, ball-bearing (as illustrated) C=3¼", D=5⁄8", H=6¾", per pair.....	5.00
No. 29½B—Knuckle-Joint Trucks only, ball-bearing (as illustrated) E=3", F=5⁄8", I=6¾", per pair.....	8.00

**Note**—Always specify by number trucks desired. Rigid type instead of Knuckle-Joint type sent unless otherwise specified.

Discount.....



R-W No. 155

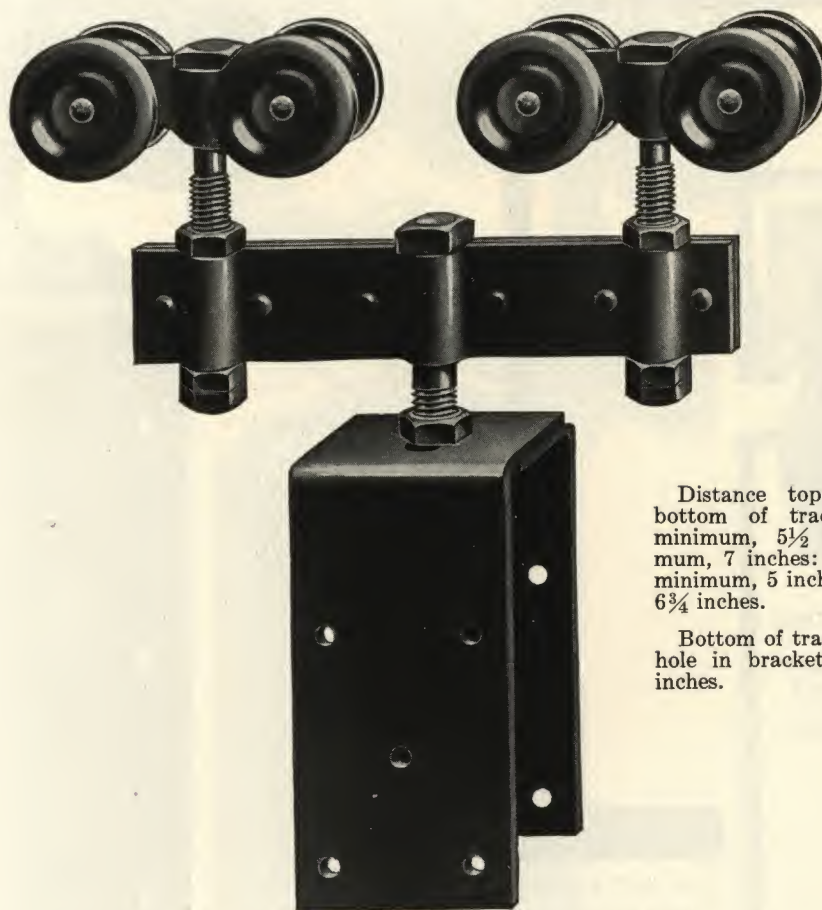
R-W No. 155½-B

## Wharf and Warehouse Door Hangers

Roller-Bearing

Ball-Bearing

For Very Heavy Doors, Weighing Up to 1500 Pounds Each



Distance top of door to bottom of track: No. 155, minimum, 5½ inches; maximum, 7 inches: No. 155½-B minimum, 5 inches; maximum, 6¾ inches.

Bottom of track to center of hole in bracket on either, 5 inches.

Track, No. 13 gauge steel, No. 33 type. Wheels, steel, 3 inches diameter. Frames, No. 155, malleable iron; No. 155½B, drop forged. Bearings, No. 155, steel rollers; No. 155½B, steel balls. Both hangers are finished in black enamel or galvanized. Adjustment, lateral and vertical.

Apron, 9 inches long, 4½ inches wide, ¼ inch thick, punched for ⅜ inch bolts. For doors 2¼ to 3½ inches thick. Packed in bulk. Weight: hangers, per pair, 40 lbs.; track, per foot, 4 lbs.

### List Price

	Black	*Galvanized
No. 155 Hangers, roller-bearing, less brackets and bolts. Per pair.....	\$10.00	\$12.00
No. 155½ B Hangers, ball-bearing, less brackets and bolts. Per pair.....	15.00	16.00
No. 33 Track, 4, 6, 8 and 10-foot lengths, (4 pieces to bundle). See page 193. Per foot.....	.58	.75
Brackets to suit requirements. For prices, etc., see page 195.		

Discount.....

\*Exposed parts of hangers only are galvanized.  
Note—Always specify brackets by number.

*For heavy doors, brackets should be spaced not to exceed 18-inch centers*

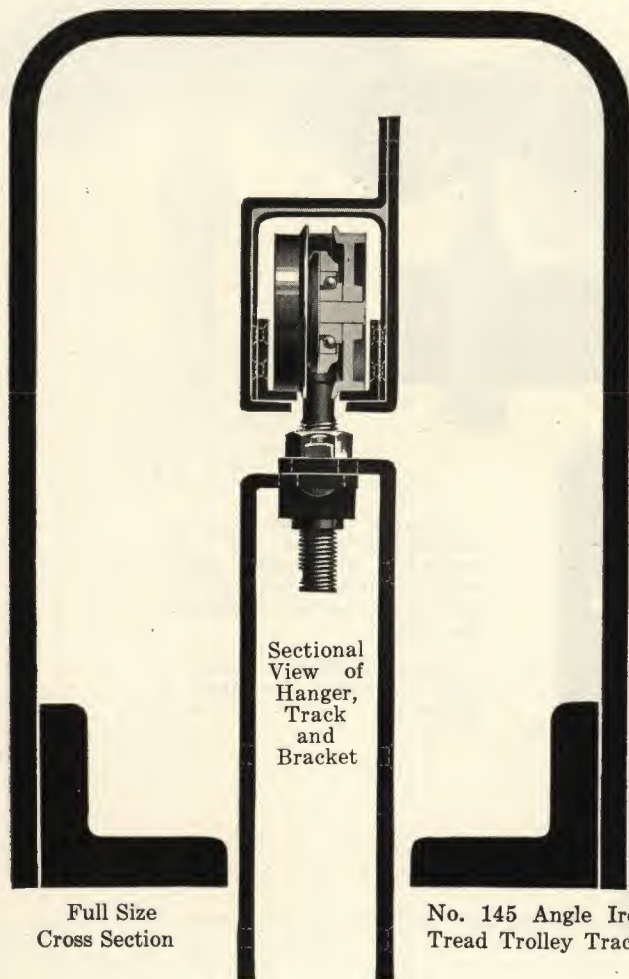


R-W No. 149

## Wharf and Warehouse Door Hangers

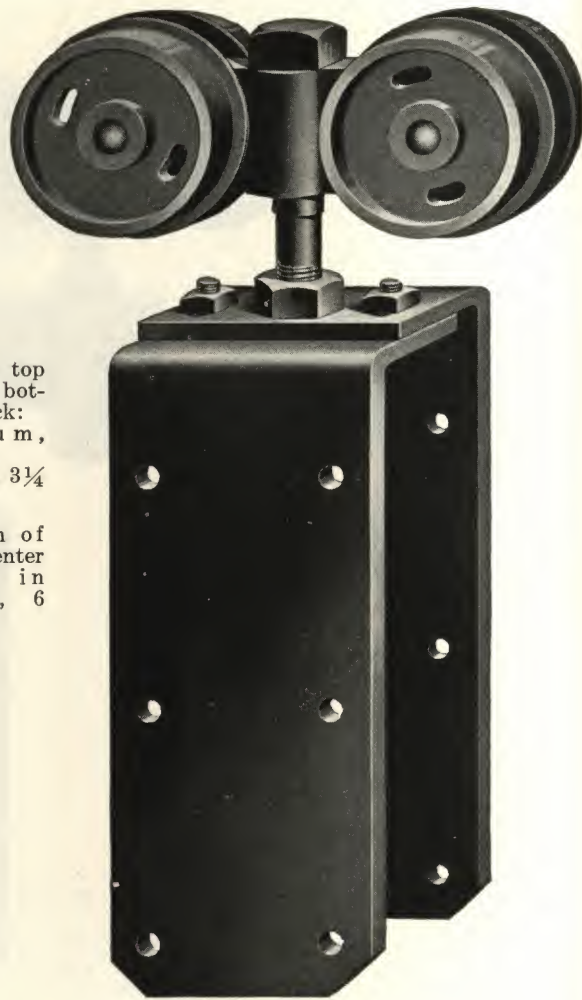
For Very Heavy Doors Weighing Up to 2000 Pounds.

Ball-Bearing



Distance top of door to bottom of track:  
Minimum, 1 3/4 in.  
Maximum, 3 1/4 in.

Bottom of track to center of hole in bracket, 6 inches.



### No. 149

Track, No. 145 trolley type, angle iron tread, No. 11 gauge housing.

Wheels, grey iron, lathe turned, 4 inches diameter. Frames, malleable iron with hardened steel cones and ball cups. Ball-bearing. Finish, black enamel. Adjustment, lateral and vertical. Apron, 12 inches long, 5 inches wide,

3/8 inch thick, punched for 3/8 inch bolts. No. 1 for doors, 1 3/4 to 2 1/4 inches, No. 2 for doors, 2 1/2 to 3 1/4 inches, No. 3 for doors, 3 1/2 to 4 1/4 inches thick. Packed in bulk. Weight: hangers, per pair, 53 lbs.; track per foot, 10 lbs.; brackets, each, 6 1/2 lbs.

### List Price

No. 149-1, 2 or 3 Hangers, less brackets. Per pair.....	\$22.00
No. 145 Track, 4, 6, 8, and 10 foot lengths. Per foot .....	3.00
No. 1 x 145 Center Brackets, less lag screws. Each.....	1.35
No. 4 x 145 End Brackets, less lag screws. Each.....	1.35

Discount.....

Note—Always specify brackets by number. For other types of brackets, see page 201.

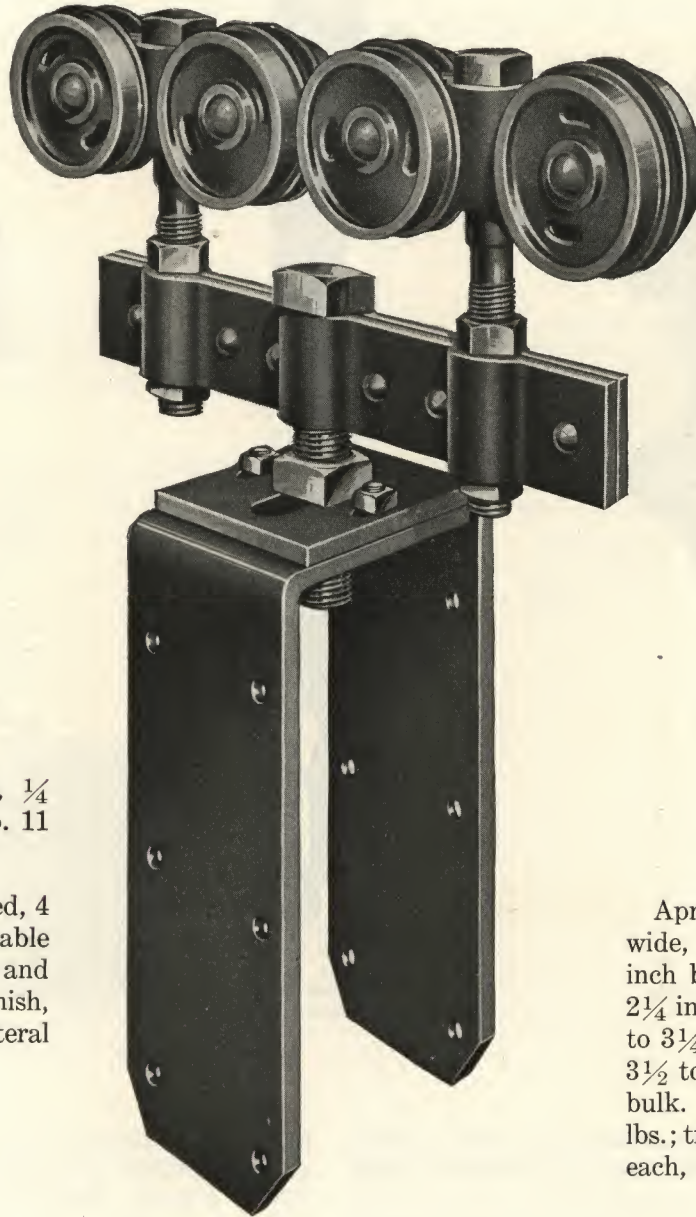
*For maximum weight doors, brackets should be spaced not to exceed 24-inch centers.*



R-W No. 1049

## Wharf and Warehouse Door Hangers

For Very Heavy Doors Weighing up to 3000 Pounds  
Ball-Bearing



Full Size  
cross-section  
of track shown  
on opposite page

On page 201  
extra heavy  
brackets for  
the track  
is shown

Track, No. 145 trolley type,  $\frac{1}{4}$   
inch thick, angle iron tread, No. 11  
gauge housing.

Wheels, grey iron, lathe turned, 4  
inches diameter. Frames, malleable  
iron with hardened steel cones and  
ball cups. Ball-bearing. Finish,  
black enamel. Adjustment, lateral  
and vertical.

Distance top  
of door to bottom  
of track:  
Minimum,  $5\frac{1}{2}$  inches  
Maximum,  $6\frac{1}{2}$  inches

Bottom of  
track to center  
of hole in  
bracket, 6  
inches

Apron, 12 inches long, 5 inches  
wide,  $\frac{3}{8}$  inch thick, punched for  $\frac{3}{8}$   
inch bolts. No. 1 for doors  $1\frac{3}{4}$  to  
 $2\frac{1}{4}$  inches thick; No. 2 for doors  $2\frac{1}{2}$   
to  $3\frac{1}{4}$  inches thick; No. 3 for doors  
 $3\frac{1}{2}$  to  $4\frac{1}{4}$  inches thick. Packed in  
bulk. Weight: hangers, per pair, 90  
lbs.; track, per foot, 10 lbs.; brackets,  
each,  $6\frac{1}{2}$  lbs.

### List Price

No. 1049-1, 2 or 3 Hangers, less brackets.	Per pair	\$44.00
No. 145 Track 4, 6, 8, and 10 foot lengths.	Per foot	3.00
No. 1x145 Center Brackets, less lag screws.	Each	1.35
No. 4 x 145 End Brackets, less lag screws.	Each	1.35

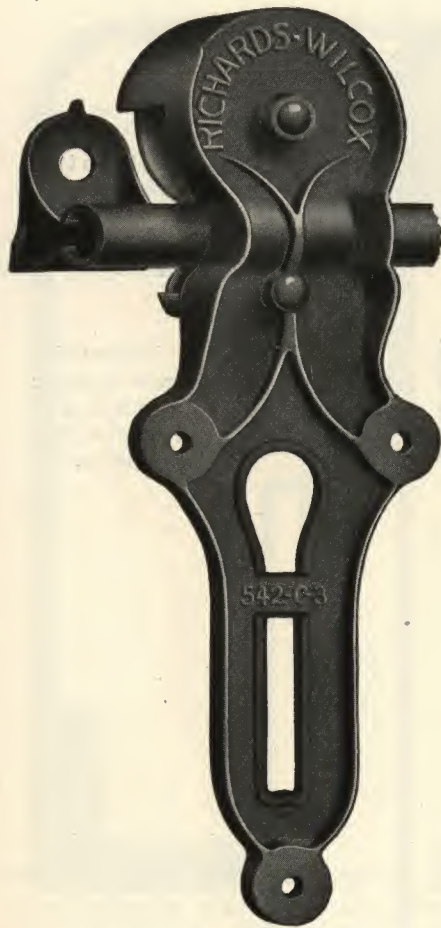
Discount.....

Note—Always specify brackets by number. For other types of brackets see page 201.

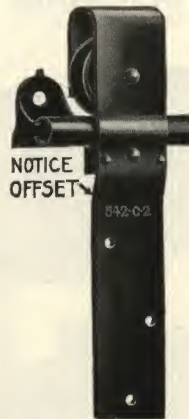
*For maximum weight doors, brackets should be spaced not to exceed 24-inch centers.*



## R-W No. 542-C-2 and No. 542-C-3 Round Track Roller Bearing Hangers



No. 542-CM-3 Hanger with Malleable Iron Frame



No. 542-CS-2 Hanger with Steel Frame



No. 542-CM-2 Hanger with Malleable Iron Frame



These  
Dimensions  
Apply to all  
Hangers on  
this Page

Distance top  
of door to cen-  
ter of track  $2\frac{1}{8}$   
inches.

Center of  
track to bolt  
hole:  $1\frac{1}{4}$  inches  
for doors  $1\frac{3}{4}$   
to 2 inches;  $1\frac{3}{4}$   
inches for doors  
 $2\frac{1}{4}$  to  $2\frac{5}{8}$   
inches.

Clearance  
above center of  
track,  $5\frac{3}{4}$   
inches.

No. 542-CS-3 Hanger with Steel Frame

Especially designed and constructed to accommodate and insure easy operation of heavy warehouse, freight station and fire doors.

Wheel, malleable iron, lathe turned,  $4\frac{3}{8}$  inches diameter. Frame, malleable iron, extra heavy ribbed back, or wrought steel frame. Bearings, steel rollers. Finish, black enamel. Limit roller eliminates binding of hanger on track and

prevents derailment of door. No. 2 size for doors  $1\frac{3}{4}$ " and  $2\frac{1}{4}$ " thick, No. 3 size for doors 2",  $2\frac{1}{2}$ " and  $2\frac{5}{8}$ " thick. Unless otherwise specified No. 3 size will be furnished. Length, over all, 21 inches; width, 7 inches. Packed three pairs in crate. Weight: hangers, per pair, 22 lbs.; track, with brackets, per foot,  $2\frac{1}{4}$  lbs.

### List Price

No. 542-CM (or CS)-2, or 542-CM (or CS)-3 Hangers. Per pair.....	\$6.00
No. 542-C Track, (page 189), in 4, 6, 8 and 10-foot lengths, (10 pieces to bundle), with movable malleable brackets. Per foot.....	.41

### Discount.....

**Note**—When ordering state thickness of doors, width of opening, number of pieces and lengths of track desired.

**Brackets should be spaced not to exceed 24-inch centers.**

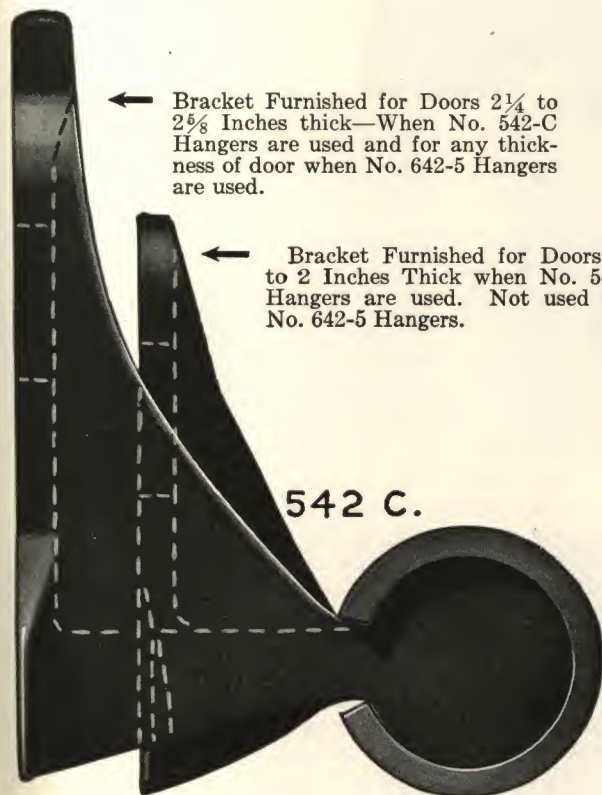


R-W No. 642-5

"Czar"

## Adjustable Door Hanger

Roller-Bearing



Full Size Cross-Section of R-W No. 542-C Round Track

← Bracket Furnished for Doors  $2\frac{1}{4}$  to  $2\frac{5}{8}$  Inches thick—When No. 542-C Hangers are used and for any thickness of door when No. 642-5 Hangers are used.

← Bracket Furnished for Doors  $1\frac{3}{4}$  to 2 Inches Thick when No. 542-C Hangers are used. Not used with No. 642-5 Hangers.



Patented

Adjustable Type

Distance top of door to center of track: Minimum,  $2\frac{3}{4}$  inches; Maximum, 5 inches.

Center of track to bolt hole,  $1\frac{3}{4}$  inches

Clearance above center of track,  $5\frac{3}{4}$  inches.

Especially designed and constructed to meet the demand for an adjustable hanger to accommodate and insure easy operation of heavy warehouse or freight station doors, fire doors and parallel equipment.

Wheel, malleable iron, lathe turned,  $4\frac{3}{8}$  inches diameter. Frame, malleable iron, extra heavy ribbed back. Bearings, hardened steel rollers. Finish, black enamel. Limit roller

eliminates binding of hanger on track and prevents derailment of door. Adjustment, lateral and vertical, with positive lock. For doors  $1\frac{3}{4}$  to  $3\frac{1}{2}$  inches thick. Length: minimum,  $21\frac{1}{2}$  inches; maximum,  $23\frac{3}{4}$  inches; 7 inches wide. Packed 3 pairs in crate. Weight: hangers, per pair, 33 lbs.; track with brackets, per foot,  $2\frac{1}{4}$  lbs.

### List Price

No. 642-5 Hangers. Per pair.....	\$12.00
No. 542-C Track, (page 189), in 4, 6, 8 and 10-foot lengths (10 pieces to bundle), with movable malleable brackets. Per foot.....	.41

Discount.....

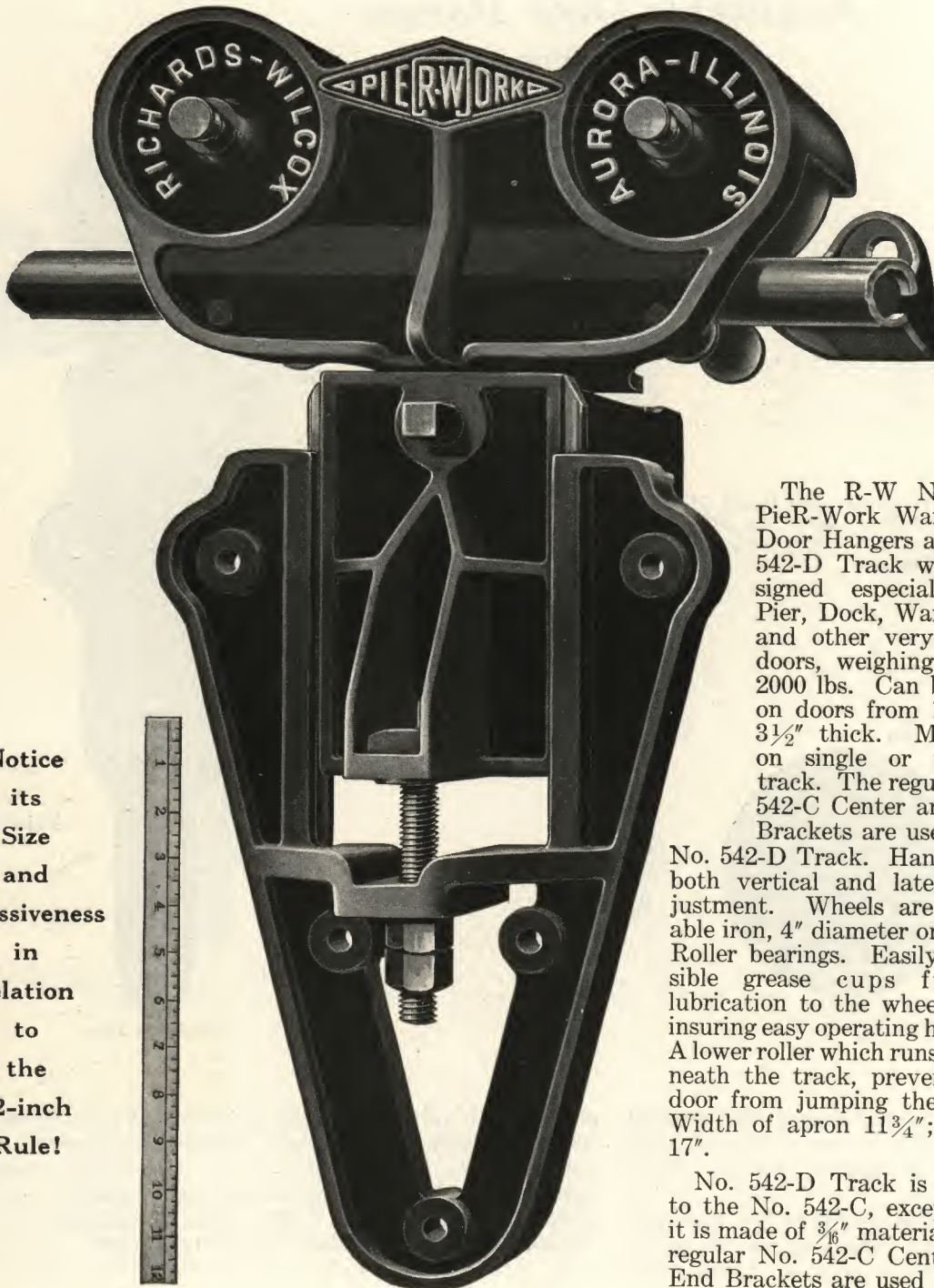
Note—When ordering state thickness of doors, width of opening, number of pieces and lengths of track desired.

**Brackets should be spaced not to exceed 24-inch centers.**



R-W No. 455

## "PieR-Work" Warehouse Door Hanger

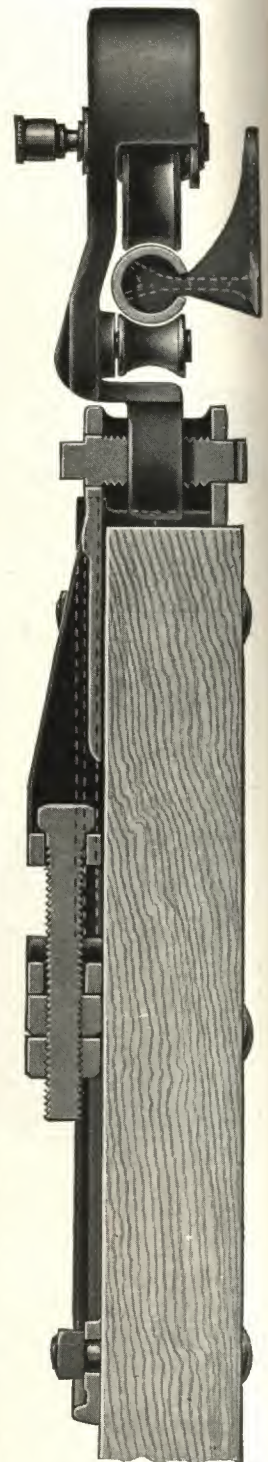


Notice  
its  
Size  
and  
Massiveness  
in  
relation  
to  
the  
12-inch  
Rule!

The R-W No. 455 PieR-Work Warehouse Door Hangers and No. 542-D Track were designed especially for Pier, Dock, Warehouse and other very heavy doors, weighing up to 2000 lbs. Can be used on doors from 1 $\frac{3}{4}$ " to 3 $\frac{1}{2}$ " thick. Mounted on single or parallel track. The regular No. 542-C Center and End Brackets are used with

No. 542-D Track. Hanger has both vertical and lateral adjustment. Wheels are malleable iron, 4" diameter on tread. Roller bearings. Easily accessible grease cups furnish lubrication to the wheels, thus insuring easy operating hangers. A lower roller which runs underneath the track, prevents the door from jumping the track. Width of apron 11 $\frac{3}{4}$ "; length 17".

No. 542-D Track is similar to the No. 542-C, except that it is made of  $\frac{3}{16}$ " material. The regular No. 542-C Center and End Brackets are used to support the track.



Cross-Section View.  
Note the 542-D Track  
and the 542-C Bracket

### List Price

	Black	Galvanized
No. 455 Hangers, weight 65 lbs. per pair.....	\$23.50	\$28.00
No. 542-D Track with malleable brackets, per foot.....	.60	.80
No. 542-C Center Brackets, each.....	.20	.25
No. 542-E End Brackets, each.....	.20	.25

Discount.....



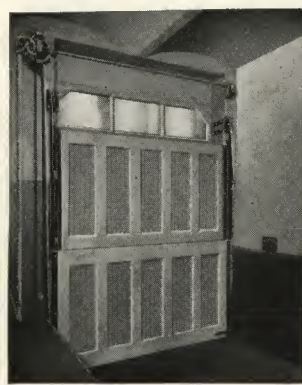
## Views of Doors That Operate in a Universal Manner



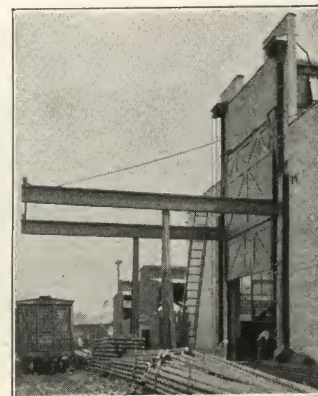
\*Fig. A-1776



\*Fig. A-1777



\*Fig. A-1778



\*Fig. A-1779



\*Fig. A-1780



\*Fig. A-1781



\*Fig. A-1782



\*Fig. A-1783



\*Fig. A-1784



\*Fig. A-1785



Fig. A-1786

**\*No. 249 Lift Door Hardware  
for One Section Turnover Doors.  
(Figures A-1783, A-1784)**

In many cases there is not sufficient space above or at the sides of an opening to slide large doors vertically or horizontally. In such cases the turnover door can often be successfully used. Door is counter balanced by weights and hoist is geared and operated by hand chain.

**\*No. 403 Lift Door Hardware  
for One Section Vertical Doors  
(Figure A-1781)**

Designed especially for large doors, too heavy or too high to be operated conveniently by pulling directly on the door. Hoist is geared and operated by a hand chain. Door is counter-balanced by weights.

**\*No. 449 Lift Door Hardware  
for Two Section Turnover Doors  
(Figures A-1776, A-1777, A-1778)**

Especially adapted to situations where frequently it is only necessary to use the lower half of the doorway, or where it would be difficult to support horizontal tracks for a one section turnover door.

**\*No. 503 Lift Door Hardware  
for Two Section Vertical Doors  
(Figures A-1779, A-1782)**

One section moves twice as fast as the other. Both are counter-balanced by the same weight. Hoist is geared and operated by hand chain.

**\*No. 549 Lift Door Hardware  
for One Section Turnover Doors  
(Figures A-1780, A-1785)**

Similar in operation to the No. 249 except that the weight cables are wound upon grooved drums instead of sheaves. Operated by hand chain.

**No. 649 Lift Door Hardware  
for Horizontal Turnover Doors  
(Figure A-1786 and Page 258)**

An excellent Equipment! Used extensively not only with wood doors but also with Tin Clad or Sheet Metal Fire Doors. Thoroughly described on pages 258 to 265 inclusive.

**No. 749 Hardware  
for Vertical Bi-Folding Doors  
(See pages 234-235)**

An Old R-W Standby! Not illustrated on this page but on pages 234 and 235. There you will find complete descriptions and list prices.

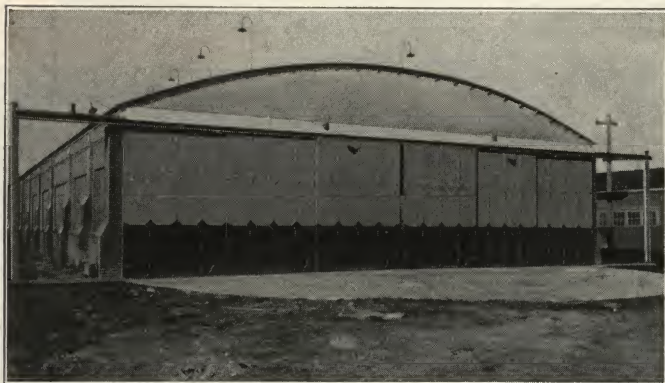
**No. 849 Hardware  
for Canopy Type Bi-Folding Doors  
(See page 236)**

Similar to No. 749 except door is mounted on outside of building and when open forms a canopy over the doorway. Not illustrated on this page but on page 236, where it is described and priced.

\*The operation of these doors, their equipment and prices are not given elsewhere in this catalog. However, if interested in any of these numbers any of our salesmen, branch managers, or engineering department at our factory, will be glad to supply you with complete information.

**Note**—Wicket Entrance Doors (a small door contained in a larger door) described on page 164.





## R-W Parallel Sliding Door Hardware for Airplane Hangar Doors

The housing of airplanes and the closing of the necessarily large openings is one which must engage the attention of architects in the very near future.

At present the government owns more hangars than are owned otherwise. However aviation is developing so rapidly that private industries and individuals are using airplanes more and more, which means increased demands for airplane hangar door equipment.

We have already furnished door equipment and in many cases, the doors themselves, for a number of hangars. Most of the door installations have been of the type shown on this page, using rather wide doors, or of the type shown on the opposite page, in which a large number of narrow doors are used.

When the doors are parallel, as shown on this page, six doors are generally used to each opening, three doors sliding to the right and three to the left.

The weight of these doors is carried on large, double-flanged, ball-bearing wheels, which run on industrial rail, which is imbedded in the concrete flooring. When used on wood doors, the wheels have large steel plates for housings. When steel doors are used, the wheels are mounted in the gusset plates of the door.

Steel Doors described on page 251.

Corrugated Steel Doors on page 250.

Wood Doors described on page 246.

The upper guide rollers, at the top of the doors, are roller bearing and operate between angle iron track.

No. 524-3 Cane Bottom Bolts (page 473) lock the doors from the inside.

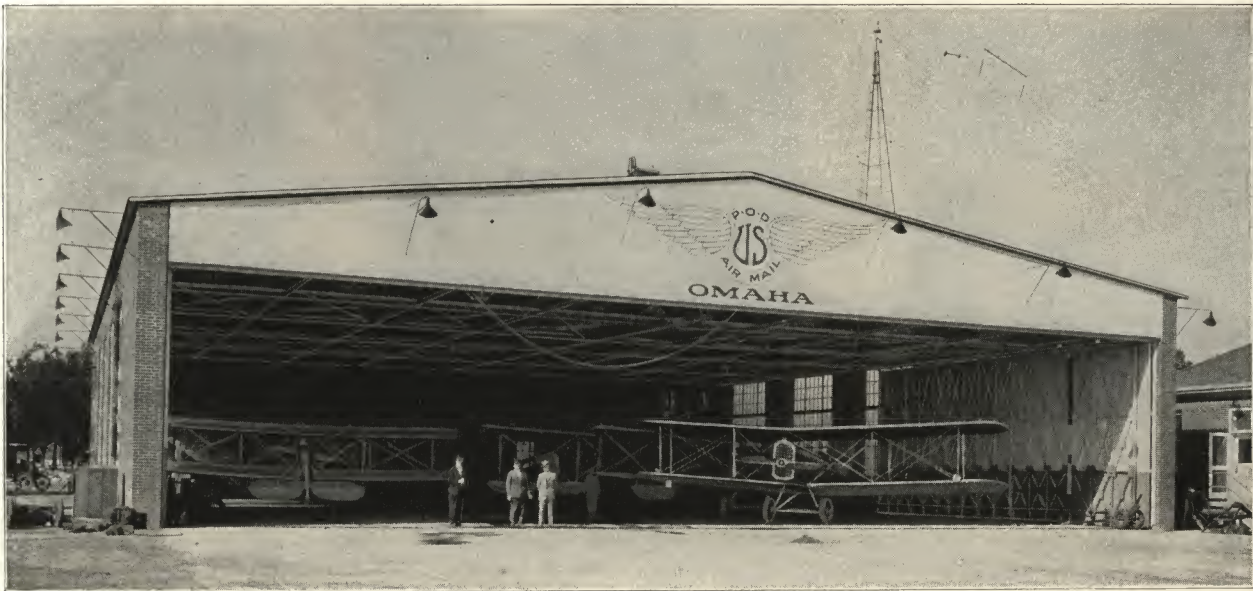
When wood doors are used No. 470 Heavy Flush Pulls (page 458) are used.

Airplane hangar openings vary so in dimensions that the weight and size of the door hardware, also of the doors themselves, differ to such an extent that every job is made to special specifications.

Send us your requirements and we will be pleased to prepare plans, data and prices, gratis, and submit them for your approval.



## R-W Hardware for Airplane Hangar Doors that Slide Around the Corner



The above method of operating airplane hangar doors is very popular. In this particular instance the opening measured 96 feet wide by 20 feet high. 32 doors, each 3 feet wide and hinged together in sections, close the doorway. The two end doors are hinged to the jamb in order to provide a space for the curved tracks and serve as entrance doors.

Half of the doors slide to the right, around the corner, and stand parallel to the side wall. The other doors slide to the left in the same manner. Usually it is preferable to use

groups of two doors. Astragal strips cover the joints between the doors when closed so that the doorway is then tight against storm and cold weather.

The weight of these doors is carried by large double flanged ball-bearing bottom wheels, in the same manner as those upon the opposite page, except that in this case the wheels are swiveled, that but a single run of industrial track is used and that it is curved at both ends of the opening.

The top guide rollers here run between channel iron tracks, instead of between angle

iron, as upon the opposite page. The rollers are mounted at the side of the doors instead of directly above them.

All of the hardware is special, even the hinges, with the exception the No. 524-3 Cane Bottom Door Bolts (page 473).

Steel Doors described on page 251.

Corrugated Steel Doors on page 250.

Wood Doors described on page 246.

Send us your requirements and we will be pleased to prepare plans, data and prices, gratis, and submit them for your approval.



R-W No. 749

## Vertical Bi-Folding Door Hardware



The R-W No. 749 Bi-Folding Door Hardware is an inexpensive equipment for vertical folding doors. It requires a minimum of side wall space and is especially suitable for use in narrow drive or passageways and where a number of doors are to be installed close together. This type of door is used in freight houses, warehouses, factories and other industrial buildings.

The doors are built in two sections and hinged together. The stiles of the upper section extend beyond the door proper and are used for attaching the upper hinges by which the door is secured to and supported from the wall above the opening.

Doors for openings up to 8 feet wide should be built with two projecting stiles for two upper hinges; doors for openings from 8 feet 1 inch up to 10 feet should have three projecting stiles for three upper hinges, doors for openings from 10 feet 1 inch up to 15 feet wide should have four projecting stiles for four upper hinges and doors for opening over 15 feet wide should have five upper hinges.

Counterweights balance the door in any position. The hand chain connected to the hoist provides a convenient means of operation. The hoist is geared so doors even of large size can be operated without excessive effort. About 3 feet of hand chain is overhauled with the No. 1 hoist to lift the door one foot and  $4\frac{1}{2}$  feet with the No. 2 hoist. Hoist can be used on either side of doorway.

The bottom rollers are 7 inches diameter and roll on angle tracks which are furnished with the hardware. A heavy steel stop is attached to the top of the track. A bent plate on the bottom roller bracket interlocks with a guide on the tracks so the door cannot be pushed away from the wall when in closed position.

Latches are furnished to bind center of doors tight to wall. Truss rods furnished for doors over 10 feet wide prevent lower section of door from buckling when in open position.

Weights and weight boxes are not included in the list prices, but will be furnished on order at an additional price. Weights for No. 1 hardware should be  $5\frac{1}{4}$  inches by 9 inches and weights for No. 2 hardware should be 8 inches square.

The R-W No. 749 Hardware is built to fit doors  $1\frac{3}{4}$ , 2,  $2\frac{1}{4}$ ,  $2\frac{1}{2}$  and  $2\frac{3}{4}$  inches thick. No. 749-1 Hardware is suitable for openings not exceeding 90 square feet in area with neither height nor width exceeding 12 feet. No. 749-2 Hardware is suitable for openings from 91 to 150 square feet in area with neither height nor width exceeding 18 feet.

Preferably, the top of extended stiles for hinging should extend above the opening 16 inches on wall openings up to 10 feet high and should be increased  $1\frac{1}{2}$  inches for each foot of opening height above 10 feet. Clearances in table are based on this rule.

Minimum space required beyond door (not edge of opening): No. 749-1; hoist side 15 inches, opposite side  $2\frac{3}{4}$  inches; No. 749-2: hoist side  $16\frac{1}{2}$  inches, opposite side,  $2\frac{3}{4}$  inches.

### In Ordering State

Width and height of opening; distance from top of opening to ceiling; clearance on each side of opening for hoist, weights and tracks; thickness of doors and kind of wall to which hardware is to be attached (if brick, concrete or masonry; state thickness and if metal jams or jamb guards are used; send size and description).

Complete set of hardware as priced consists of hoist, with hand chain, cable, pulleys, upper hinges, center hinges, bottom guide rollers, tracks, latches, truss rods for openings over 10 feet wide, cable separator, cable clamps, cable thimbles, turnbuckles, screws and bolts for attaching parts to door. Wall bolts, weights and weight boxes can be furnished at an additional price if so ordered. Weights required equal about 60 percent of the weight of the door. Average weight per set No. 749-1, 220 lbs. No. 749-2, 400 lbs.



## R-W No. 749 Vertical Bi-Folding Door Hardware (Continued)

List Price and Headroom Table

†Area of Opening, Square Feet	Minimum Headroom (Above Opening)					*List Price
	Thickness of Door					
	1¾"	2"	2¼"	2½"	2¾"	
50	28½"	28½"	28½"	29½"	32½"	\$ 82.50
60	28½"	29 "	31 "	33 "	36½"	86.90
70	30 "	32 "	34 "	36 "	40½"	91.25
80	32 "	35 "	37 "	39½"	44 "	95.65
90	34½"	38 "	40 "	42½"	48 "	100.00
100	35 "	35 "	37½"	39½"	43½"	125.00
110	35 "	37½"	39½"	41½"	45 "	130.00
120	36 "	39 "	41½"	43½"	47 "	135.00
130	37½"	40½"	43½"	45½"	49½"	140.00
140	39 "	42 "	45½"	47½"	52½"	145.00
150	40½"	43½"	47½"	49½"	55½"	150.00

\*For intermediate areas, use next higher list price. Above clearances are based on openings 10'0". Add 1 1/2" to figures given above for each foot of opening height above 10'0".

†Based on wood doors. Metal doors require special consideration.

We do not furnish the doors themselves.

Weights, Per lb.	\$ .10
No. 749. Weight Boxes for openings up to 10 ft. high	22.50
Extra for each additional foot of height over 10 feet	1.25

Detail blue prints furnished on request.

Discount.....



### No. 749-1 Offset Strap Hinge

This hinge can be placed in either a vertical or horizontal position upon a door. However, it was primarily intended for use on doors which overlap the jambs. (For 749 and 849 equipment). Strap is made of 5/16"x2 1/2" steel. Length from center of pin to end of strap is 18". Pintle made of malleable iron 7" high, 2 1/4" wide, measuring from center of the hinge pin. The Hinge Pin is 1/2" in diameter. Made for doors 1 3/4", 2", 2 1/2", and 2 3/4" thick. Packed in bulk with 1/2" countersunk head carriage bolts. Screws for pintle are not furnished unless ordered. Finish, black japan. Weight, per pair, 13 pounds.

*For Bi-Folding Doors when used Vertically. For Swing Doors when used Horizontally.*

#### List Price

No. 749-1—Size 18"x2 1/2" Offset Strap Hinge. Per Pair.....\$3.60

Always mention thickness of door when ordering.

Discount.....

749-1 Strap Hinge



749-1



749-2

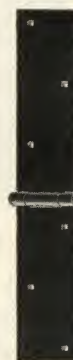
### Center Hinges for 749 and 849 Bi-Folding Doors

These substantial hinges are made for use on bi-folding industrial doors: Nos. 749-1 and 749-2 hinges for use on the In-Opening Type of doors, page 234; Nos. 849-1 and 849-2 hinges for use on the Out-Opening Type, (page 236). Packed in bulk less bolts. Finish, black japan.

849-1



849-2



#### List Price

Catalog Number 749-1		Catalog Number 749-2		Catalog Number 849-1		Catalog Number 849-2	
Size of Straps 1/4"x3"		Size of Straps 5/16"x4 1/2"		Size of Straps 1/4"x3"		Size of Straps 5/16"x4 1/2"	
Length of Each Leaf 12"		Length of Each Leaf 12"		Length of One Leaf 12" Other Leaf 14"		Length of One Leaf 12" Other Leaf 14"	
Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair
11	\$3.60	20 1/2	\$7.20	12 1/2	\$3.60	21 1/2	\$7.20

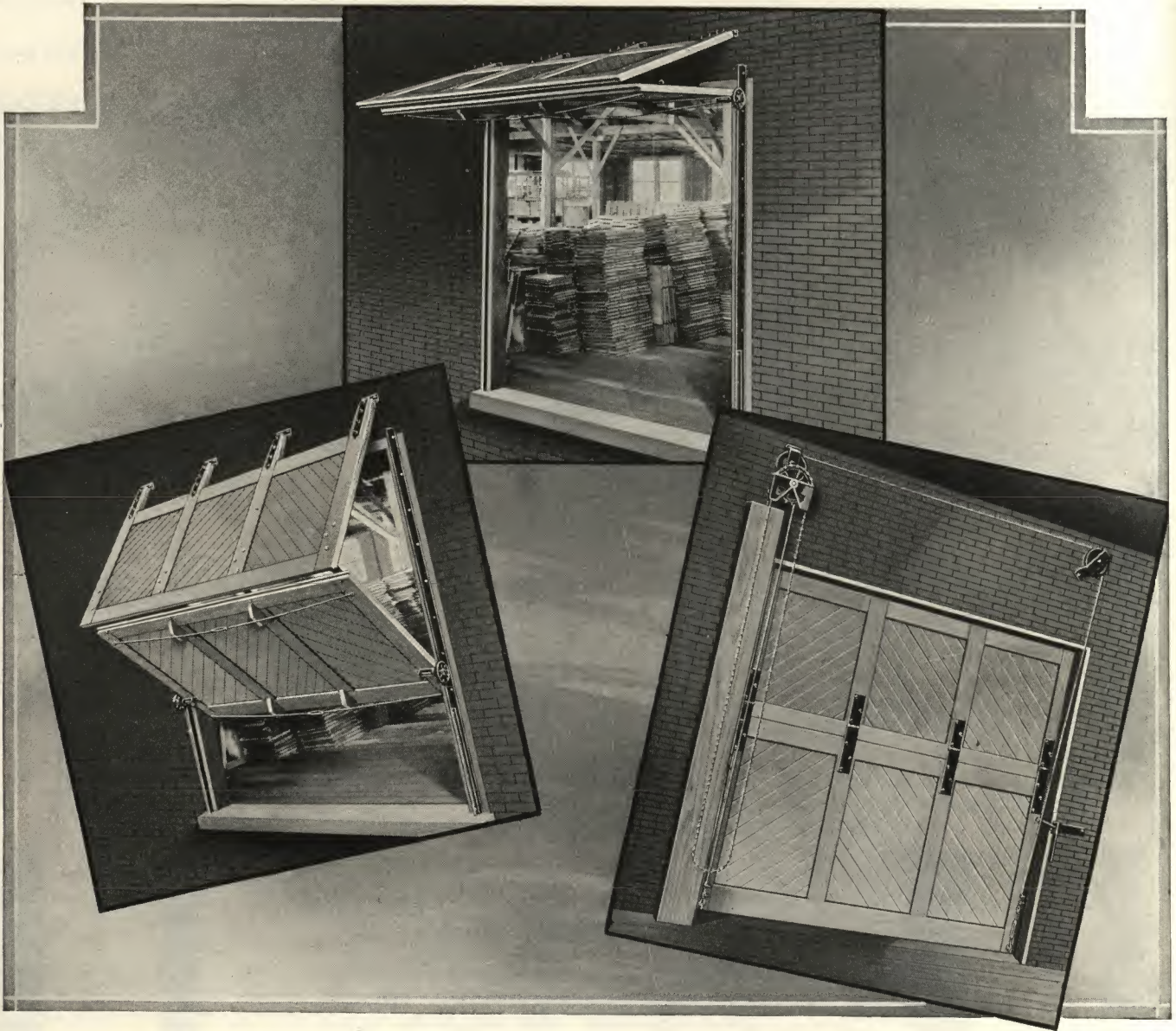
**Note**—As a large supply of these hinges are always carried in stock, we are in position to make quick shipment at all times. Bolts for these hinges will be furnished at no additional price if the thickness of the doors is given on the order.

See following page for 849 equipment.

Discount.....



## R-W No. 849 Canopy Type Bi-Folding Door Hardware



The R-W No. 849 Canopy Type Bi-folding Door is similar to the No. 749 illustrated on pages 234 and 235 except that the door is mounted on the outside of the building and when open forms a canopy over the doorway. The description of hardware given on the pages referred to, also applies to No. 849 hardware. The hoist and counterweights are inside of the building.

Made for doors  $1\frac{3}{4}$  to  $2\frac{3}{4}$  inches thick. Requires  $2\frac{3}{4}$  inch space on each side of door (not opening), outside of building. On inside of building  $12\frac{1}{2}$  inch sidewall space is required on both sides. This may be reduced on the side opposite from the weights by making special latches. Headroom is given in table.

†Area of Opening, Square Feet	Minimum Headroom (Above Opening)					*List Price
	Thickness of Door					
	1 ¾"	2"	2 ¼"	2 ½"	2 ¾"	
50	26 "	27 ½"	28 ½"	29 ½"	32 ½"	\$ 92.50
60	28 ½"	29 "	31 "	33 "	36 ½"	96.90
70	30 "	32 "	34 "	36 "	40 ½"	98.75
80	32 "	35 "	37 "	39 ½"	44 "	105.65
90	34 ½"	38 "	40 "	42 ½"	48 "	110.00
100	35 "	35 "	37 ½"	39 ½"	43 ½"	135.00
110	35 "	37 ½"	39 ½"	41 ½"	45 "	140.00
120	36 "	39 "	41 ½"	43 ½"	47 "	145.00
130	37 ½"	40 ½"	43 ½"	45 ½"	49 ½"	150.00
140	39 "	42 "	45 ½"	47 ½"	52 ½"	155.00
150	40 ½"	43 ½"	47 ½"	49 ½"	55 ½"	160.00

\*For intermediate areas, use next higher list price.

†Applies to wood doors only. Metal doors require special consideration.

Above clearances are based on opening 10'0" high. Add  $1\frac{1}{2}"$  to figures given above for each foot of opening height above 10'0".

Discount.....



## R-W Hardware For Large Sliding-Folding Doors



Fig. A-1787—This opening measures 40 feet long by 17 feet high. The doors are 4 inches thick, 10 feet wide and 17 feet high. They weigh 2300 pounds each, or a total of 9,200 lbs. and one man easily opens or closes them!



Fig. A-1788—Opposite the glazed portion of the doors, special H type surface hinges are used. When the glazed portion of the doors extend the whole height of the doors, from top to bottom, as is frequently the case with doors of R. R. Car Repair Shops, then these H hinges would be used at the door joints to the exclusion of T or double strap hinges.



Fig. A-1789—The special T hinges at the jambs are 10'6" long and of the R-W 434-A type (as shown on page 14, catalog 42). They are bolted through the door and through the special 434-J type of Double Strap Flat Hinges (page 18, catalog 42) which can be seen on the exterior of the doors in the center illustration.



Fig. A-1790—Large trolleys and hangers were used so that advantage could be taken of large size wheels, as wheels of large diameter run smoother and easier than smaller wheels.

Big door installations, such as the above, are always special. The R-W Engineering Department stands ready at all times to work up preliminary layouts, details and estimates, gratis.

For your general information we show below a list of the hardware required on the doors illustrated on this page.

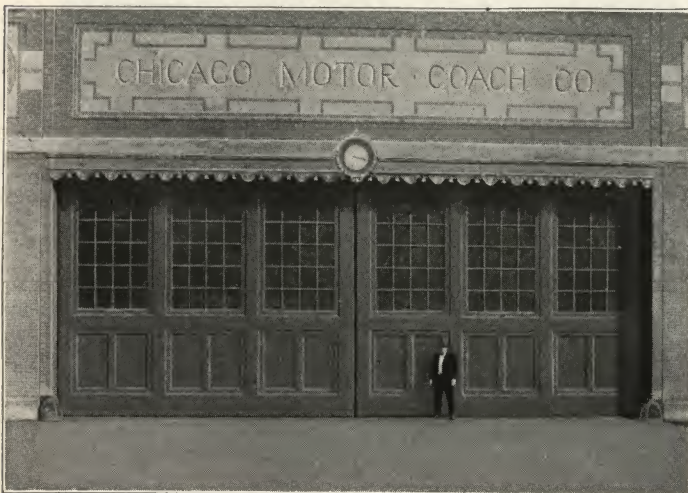
### List of Parts

- No. 900—6" Straight Steelbeam Track. (Page 358).
- No. 900—7" Curved Steelbeam Track. (Page 358).
- Special Wall Brackets, using No. 910—6" Universal Track Clamps (Page 359).
- Special Ceiling Drop Brackets with No. 910—7" Universal Track Clamps.
- No. 929—1½ ton Hangers. (Page 239).
- No. 925—1½ ton Trolleys (Page 352) with Special Trolley Apron.
- Special T Hinges 10'6" long. Of the 434-A type (Page 14, Catalog 42).
- Special Double Strap Flat Hinges, 18 ft. over all. Of the 434-J type. (Page 18, Catalog 42).
- Special H Hinges.
- No. 524-3 Cane Bottom Bolts (Page 473).
- No. 2120-2125 Top Spring Bolt, with chain (Page 474).
- No. 1025-4 Door Latch (Page 462).
- No. 191 Heavy Bow Handles (Page 459).
- No. 470 Heavy Flush Pulls (Page 458).
- Note**—Wicket Door Hardware (Page 164) furnished when required.



## R-W No. 928 and No. 929 Hangers Used on These Heavy Straight Sliding Doors

*"There's an R-W way for Every Doorway"*



There is no doorway problem, large or small, that R-W equipment will not solve. The installations described are typical of the experience of thousands who use the R-W way—the right way:

Edward Wotton, Supt. of Equipment, Chicago Motor Coach Co., Chicago, says: "Large door openings are necessary in our garages to provide safety clearance for motor coaches. Our large West Side garage has two 40 ft. by 17 ft. openings. Door hangers for openings this size must be of proper design and construction or the great weight of the doors will soon put them out of commission."

"After experience with many other types of hangers, we have standardized on Richards-Wilcox Equipment, using ball-bearing trolleys of sufficient capacity to avoid overloading, because its absolute rigidity prevents misalignment and excessive wear."

"One 40 ft. by 17 ft. opening was equipped with a pair of sliding doors, weighing 4,500 lbs. each. These doors must be operated hundreds of times each day, as our buses are constantly leaving or returning."

"The old type of door was so hard to operate it often was not opened wide enough, and accidents resulted, after which the doors never would operate properly. Our R-W equipped doors are most satisfactory."

### The Illustration Above

Shows a pair of iron studded straight sliding doors, built of teak wood, used in the Federal Reserve Bank building of New York.

Each door weighs 6 tons!

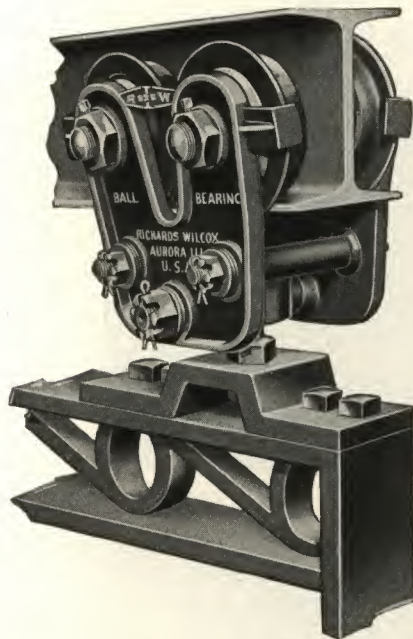
One pair of No. 928 Hangers are used on each door, permitting the doors to be operated easily and quickly.





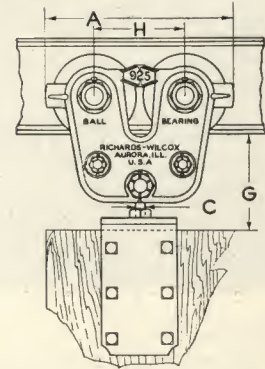
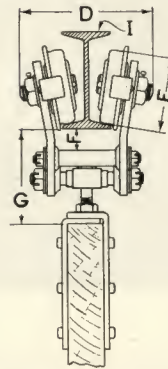
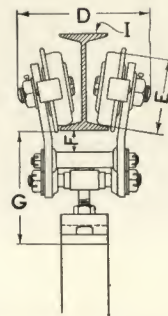
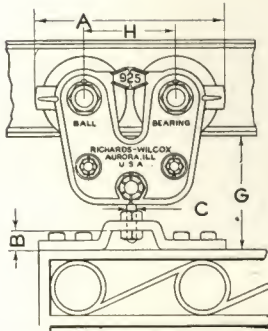
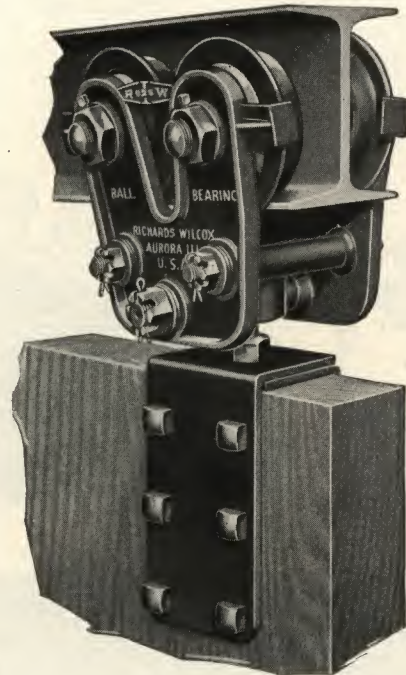
## R-W No. 928

Hanger with Plate Attachment for Doors



## R-W No. 929

Hanger with Apron Attachment for Doors



These hangers are for use on very heavy doors and for doors where the service conditions are very severe. Being ball-bearing they operate smoothly and easily. Plates and aprons are made to special order to

fit the particular doors on which they are to be used. In ordering always give thickness of the doors. For a more detailed description of the hangers see description of the No. 925 Trolley on page 352

List Price and Dimension Table

Hanger No.	Maximum Weight of Door, Lbs.	*Size of Track On which Standard Hanger will run, Ins.	†Min. Distance from Center of Track to Wall, Ins.	A	B	C	†D	E	F	Min. G Ins.		H	Weight, Lbs. Per Pair		\$Pull required to start Full Load, Lbs.	Price Per Pair
				Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	928	929	Ins.	No. 928	No. 929		
928-¼ or 929-¼	1,000	4, 5, 6	4	8 ¼	1 ½	¾	6 ¼	2 ¾	¾	5 ½	4 ½	3 ¾	51	62	20	\$72.00
928-½ or 929-½	2,000	5, 6, 7	4 ½	10 ¼	1 ¾	¾	7 ½	3 ¾	1	6 ¾	5 ¼	4 ¾	86	99	34	78.00
928-1 or 929-1	4,000	6, 7, 8	5	12 ¼	1 ¾	1	8	4 ¾	1 ¼	8 ½	6 ¼	5 ¾	145	155	74	92.00
928-1½ or 929-1½	6,000	7, 8, 9	5 ½	14 ¼	1 ¾	1 ½	9 ½	5 ½	1 ¼	8 ¾	6 ¾	6 ¾	194	213	90	108.00
928-2 or 929-2	8,000	8, 9, 10	6	16 ¾	2	1 ¼	10 ¼	6 ¾	1 ¼	9 ½	7 ¼	7 ¾	274	282	100	124.00
928-3 or 929-3	12,000	9, 10, 12	6 ½	19	2 ½	1 ¾	11 ¼	7 ¾	1 ¼	10 ¼	8	9 ¾	400	407	150	156.00
928-4 or 929-4	16,000	10, 12, 15	7	21	2 ¾	1 ¾	12 ¼	7 ¾	1 ¼	11	9	10	501	523	190	188.00

**Note**—\*Hangers can be fitted to larger sizes of track at an additional price of \$6.00 per pair. Sometimes larger sizes of track are required on account of the distance between supporting points. Recommendations as to proper size of track should be gotten from our engineering department. In making such requests give information as to where supports can be located and state weight of door.

†This dimension applies to the smallest size of track for each hanger as listed in column 3.

‡For larger sizes of track add ½ the difference in width of tracks.

§Easier running can be obtained by using larger size hangers.

Tracks are priced on page 358.

Track Supports are extra and price depends upon requirements.

Discount.....

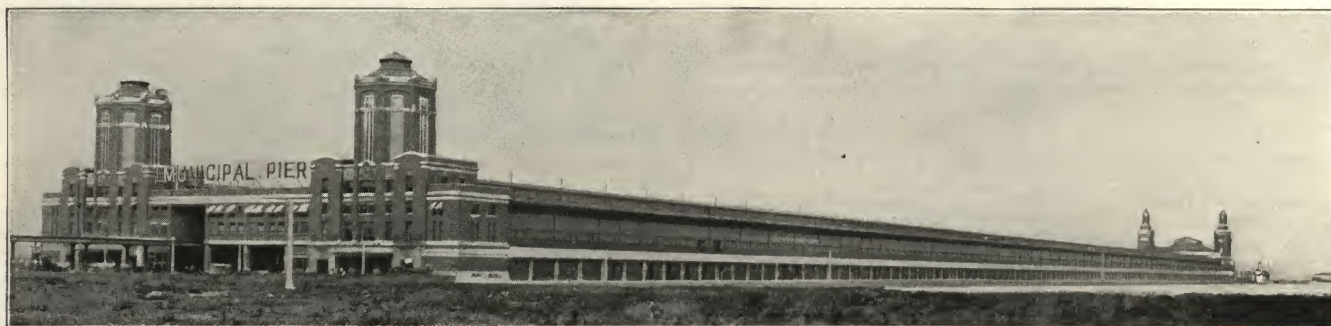


## Parallel Sliding Door Equipment

for  
Piers,  
Freight  
Houses,  
Etc.



for  
Factories,  
Shipping  
Rooms  
Etc.



The parallel sliding door equipment, as shown on this and the following three pages, has proved its worth over a number of years.

Some persons prefer the trolley track type, others the round track type. Both types are popular and give long, satisfactory service.

There is hardly a city in the United States but has its R-W Parallel Sliding Door Installations. They are in constant use—from the Atlantic to the Pacific.

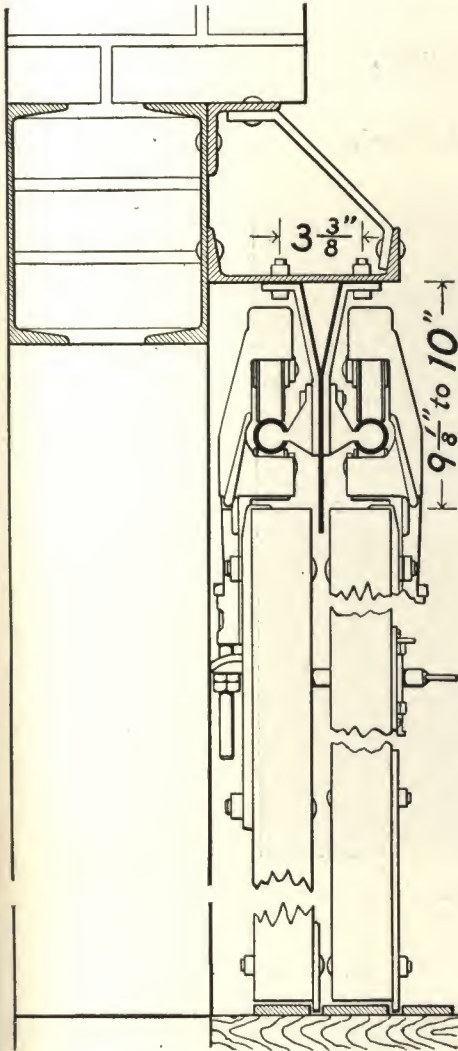
The upper three pictures speak for themselves. They are typical installations.

The lower picture shows the Municipal Pier, at Chicago, which extends into Lake Michigan, at the foot of East Grand Avenue. The center structure includes a dance hall and concert hall with seating capacity of 4,000. The outer end carries a broad promenade with steps descending to the water.

Street cars, autos and pedestrians use the roof of the freight sheds when making their way to the pleasure pier. There are over 2,800 doors in the building arranged in parallel series, supported by over 5,700 R-W Door Hangers. The R-W Track in the Municipal Pier, if laid end to end, would extend over six miles, and requires about 14,000 R-W Brackets to support it.



## Details of Parallel Door Tracks Illustrated on Pages 240, 242, and 243



We Do Not  
Furnish Channels  
To Which  
Tracks Are  
Shown  
Attached

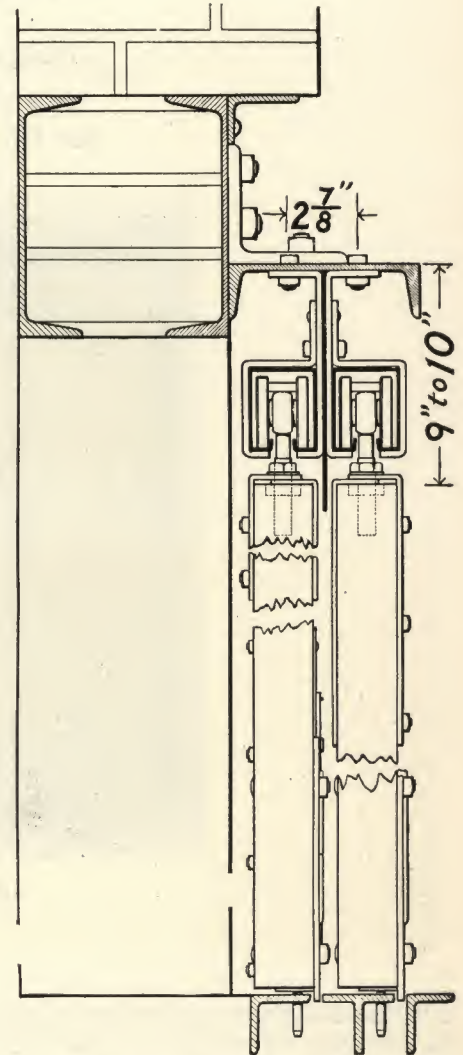


Fig. A-1791—Vertical Cross-Section  
No. 255, Tubular Track Type

Fig. A-1793—Vertical Cross-Section  
No. 251, Trolley Track Type

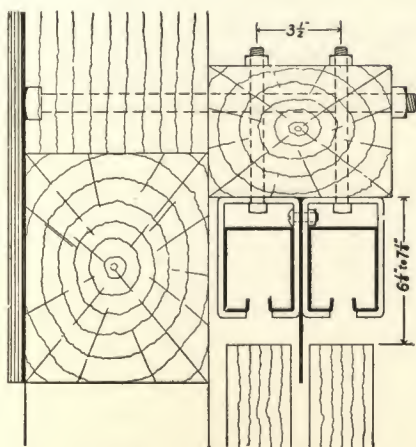


Fig. A-1792—Vertical Cross-Section  
No. 253, Trolley Track Type

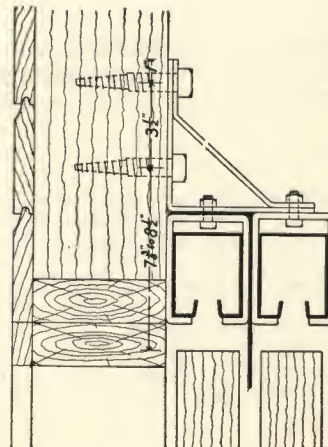


Fig. A-1794—Vertical Cross-Section  
No. 258, Trolley Track Type

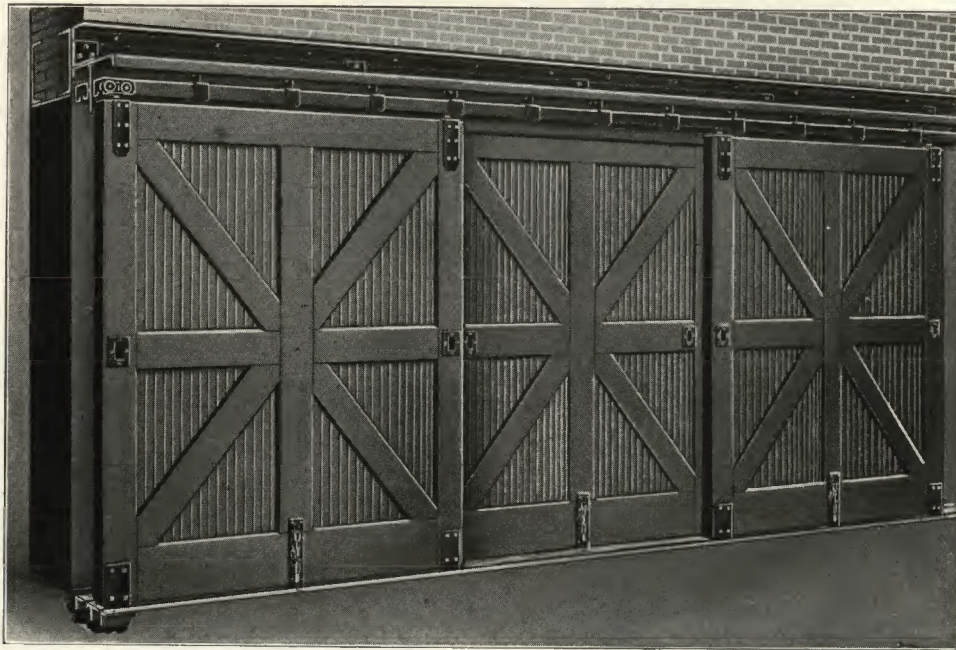


## R-W Nos. 251, 253 and 258 Parallel Door Equipment

Trolley Track Type

Designed Especially for Freight Houses, Warehouses,  
Lumber Sheds and Pier Doors

For Doors Weighing Not More Than 800 Pounds Each



Hangers Have Both Vertical and Lateral Adjustment

Richards-Wilcox parallel door equipment insures successful operation of continuous parallel doors, and has been especially developed for use on warehouse and freight station doors. Permits an opening at any place desired, eliminating necessity of spotting cars at any particular point.

Tracks as shown above are assembled complete in sections to accommodate different size openings. They are suitable for attaching to any construction. No. 251 Type

Drop Bracket for overhead attachment; No. 253 Type Plain Bracket for overhead attachment; No. 258 Type for side wall attachment. See cross sections on page 241.

Weather strip extends below top of door which makes equipment absolutely storm-proof. Either No. 519 Bolt, as shown, or No. 518 Bolt, as on opposite page, can be used. The efficiency and durability of this equipment has been demonstrated by its successful use on large constructions in different parts of the country.

### List Price

No. 251 Parallel Track, No. 33 size, with weather strip.	Per foot.	\$3.00
No. 253 Parallel Track, No. 33 size, with weather strip, 18 lbs.	Per foot.	3.00
No. 258 Parallel Track, No. 33 size, with weather strip.	Per foot.	3.10
No. 150½ B-1 or 2 Hanger, (see page 223).	Per pair.	8.50
No. 70-2 Flush Pull, (see page 458).	Each.	.33
No. 518 Door Bolt, (see page 467).	Each.	2.00
No. 519 Door Bolt, (see page 467).	Each.	2.00
No. 738 Guide Plate, (see page 453).	Each.	.70

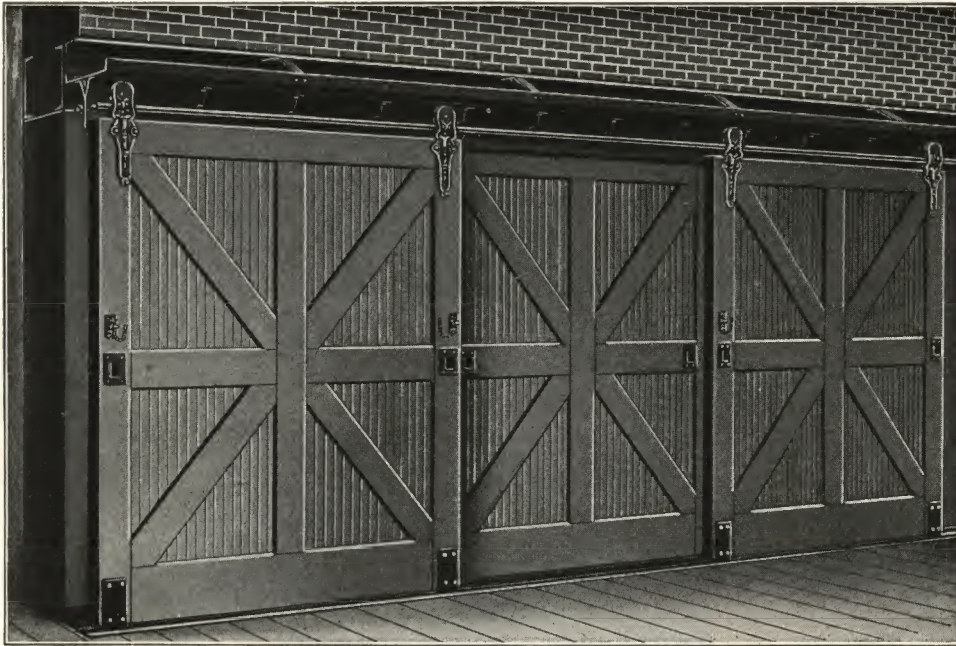
**Note**—Brackets are assembled to track and above price includes same.  
Always send sketch showing floor plan, when ordering, and specify by number.  
Further information contained in working blue prints on request.

Discount.....



## R-W No. 255 Parallel Door Equipment

Round Track Type  
Used Extensively by Railroads for Freight House and Pier Doors  
For Doors Weighing Not More Than 800 Pounds Each



Hangers Have Both Vertical and Lateral Adjustment

The above round track parallel door equipment operates in same manner as trolley track illustrated on opposite page. This type has proven very popular with railroads and its durability has been demonstrated by its successful use on large freight houses in different parts of the country. Views of these will be sent on request.

This equipment permits an opening at any place desired, eliminating necessity of spotting cars at any particular point.

Track as shown above is assembled complete in sections to accommodate different size openings. It is suitable for attaching to any construction. Cross-section details shown on page 241.

Weather strip extends below top of door which makes equipment absolutely storm-proof.

Either No. 518 Bolt, as shown, or No. 519 Bolt, as on opposite page, can be used.

### List Price

No. 255 Parallel Track, No. 542-C size, with weather strip, 12 lbs. Per foot.....	\$ 2.00
No. 642-5 Hanger, (see page 229). Per pair.....	12.00
No. 70-2 Flush Pull, (see page 458). Each.....	.33
No. 518 Door Bolt, (see page 467). Each.....	2.00
No. 519 Door Bolt, (see page 467). Each.....	2.00
No. 738 Guide Plate, (see page 453). Each.....	.70

Discount.....

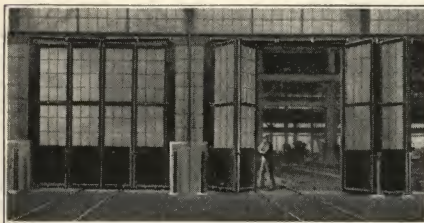
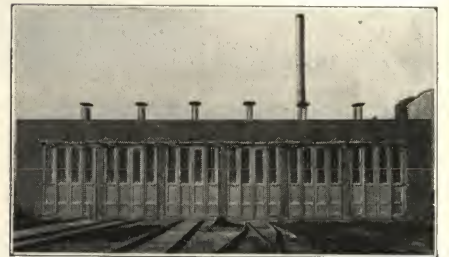
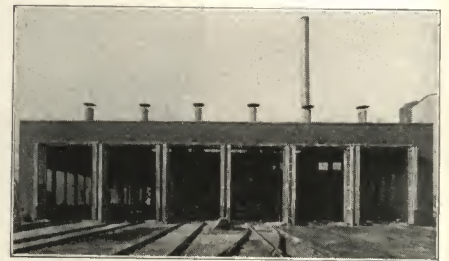
**Note**—Brackets are assembled to track and above price includes same.  
**Always send floor plan when ordering, and specify by number.**  
Further information contained in working blue prints on request.



R-W No. 434

## Roundhouse, Shop and Large Warehouse Door Hardware

Patented



No. 434 door hardware is specially designed to meet the requirements of roundhouse, shop and large warehouse doors. It is used with the four unit type of door construction, which has proved most satisfactory for car and locomotive door openings. With this equipment the doors are opened so that they present only one-half of their area to the wind. The upper corners of the center doors are supported by trolley hangers, which hold the doors true

to line and guide them as they are opened and closed. With only a 12 in. column between adjacent openings, these doors fold back out of the way and leave an entirely clear doorway. The doors are held open by steel latches which engage with door stops. They are held in a closed position with heavy steel cane bolts and spring bolts. All of the hardware is extra heavy.

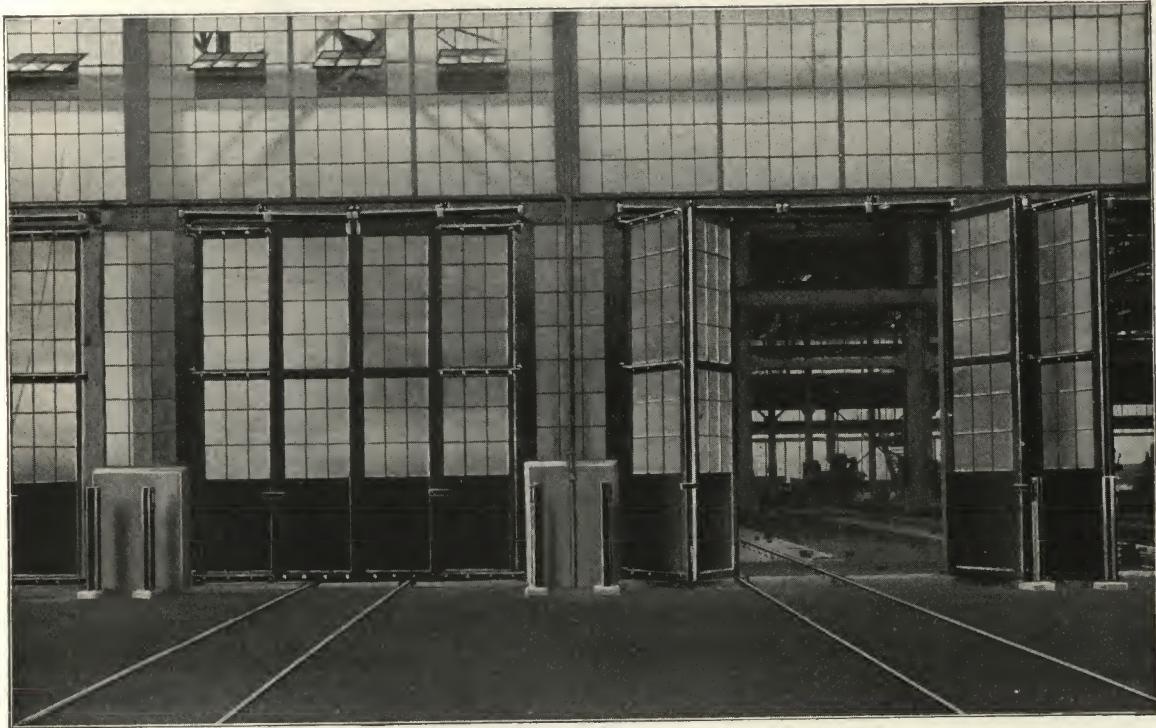
Working blue prints furnished on request. See next page.



R-W No. 434

## Round House and Shop Door Hardware

Patented



Equally well suited for wood or steel doors.

The R-W No. 434 Hardware consists of hangers, tracks, brackets, hinges, locking bolts and hold-open latches. When wicket doors are used, hinges and latch are furnished for the same.

The hangers and track brackets are the Nos. 435x33 and 1035x33 illustrated on page 102. The track is our No. 375 made of No. 13 gauge steel, shown in full size on page 345.

The jamb hinges consist of a strap made of heavy steel (see pages 488 to 490) which extends entirely across the door. The double eye pintle has large steel pin. When mounting on minimum width columns, the pintles must be recessed into the column. The two doors of each pair are connected together by heavy double strap hinges of heavy steel (see page 491) made with knuckles 5 to 6 inches wide. The bolt holes in one leaf of the double strap hinges are made to correspond with the bolt holes in the strap of the jamb hinge. These two hinge leaves are placed on opposite sides of the door nearest the jamb and are bolted together

with bolts through the door, in that way forming a continuous hinge from the jamb to the center of the opening. Ordinarily three sets of hinges are sufficient but very heavy doors may require four or five sets of hinges.

Large cane bolts and spring bolts are furnished for each pair of doors. The cane bolts are for the bottom of the door and the spring bolts for the top.

A hold-open latch bar is attached to the outside of one door of each pair. The hold-open latch is attached to a post or a section of rail set in the ground as illustrated. The latch cannot be accidentally released but holds doors positively until manually released.

A pair of heavy tee hinges and a heavy warehouse door latch are furnished for wicket doors when so ordered.

Our blue prints should be consulted before building the doors.

In ordering state width and height of opening, thickness of doors, state if doors are wood or metal and describe construction, describe jambs, send detail drawings if possible. All doors in an opening must be of equal width.

### List Price

No. 434 Hardware complete with three sets of hinges, weight 725 lbs.	Per set.....	\$100.00
No. 434 Hardware complete with four sets of hinges, weight 850 lbs.	Per set.....	125.00
No. 434 Hardware complete with five sets of hinges, weight 975 lbs.	Per set.....	150.00
No. 434 Wicket Door Hardware only, weight 20 lbs.	Per set.....	5.00

Discount.....



## R-W No. 448 SupeR-Way Mill-Type Doors

Patented

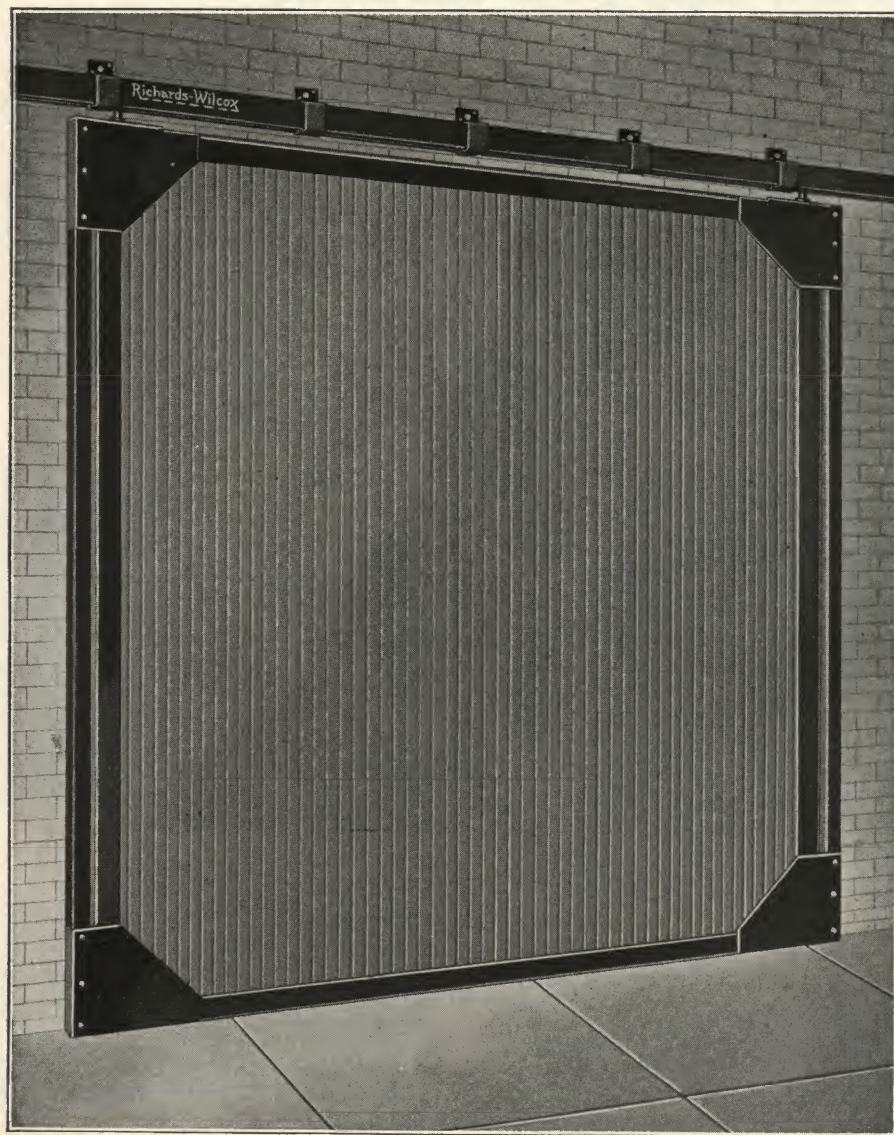


Fig. A-1795—A SupeR-Way Mill-Type Door used in connection with Straight Sliding or Parallel Sliding Door Hardware

The term "Mill-Type" as applied to this new door construction has two significations:

First—That of peculiar fitness for railroad roundhouse and industrial door openings.

Second—That of "slow-burning."

The underlying merit of Mill-Type Doors is contained in the phrase "steel-to-steel," in contrast with the usual construction which is steel-to-wood.

A door operates by being hung on hinges, hangers or other hardware—steel fitted to wood—in which case the strains are transmitted from the steel to the wood through the bolts and screws that hold the hardware to the door. Such doors deteriorate rapidly from strains that are constantly acting to pull the wood members apart.

SupeR-Way Doors are especially recommended for railroad freight sheds, baggage rooms, warehouses, shops, round-

houses, and for all industrial door openings where strength and permanence are essential.

In a SupeR-Way Mill-Type Door there is no strain whatever on any of the wood members. The weight of the doors is carried by the built-in steel frame and by hinges, hangers and other hardware which attach not to wood, but to steel—steel-to-steel throughout.

A SupeR-Way Mill-Type Door consists of a  $2 \times 1\frac{1}{2} \times \frac{1}{4}$  inch steel T frame which is complete in itself.

Fig. A-1796 shows the steel T frame of a sliding door before the wood members are fitted, also the manner in which the hangers are attached directly to the upper gusset plates. It will be seen at a glance that the wood members have nothing to do with hanging this door but that the weight is carried by the steel which is not subject to sagging, warping and pulling apart common to ordinary doors.



Fig. A-1796—Steel T frame of a sliding door before wood members are fitted. Steel-to-steel throughout.

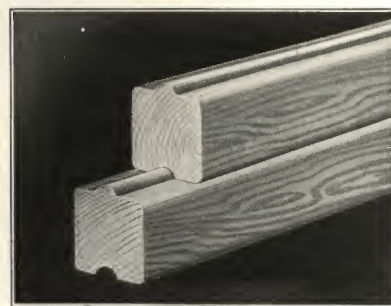


Fig. A-1797—Cross section of wood members.

*Detail Blue Prints and Prices of Mill-Type Doors on Application.*

*"Steel to Steel"*



## R-W No. 448 Super-Way Mill-Type Door

Patented

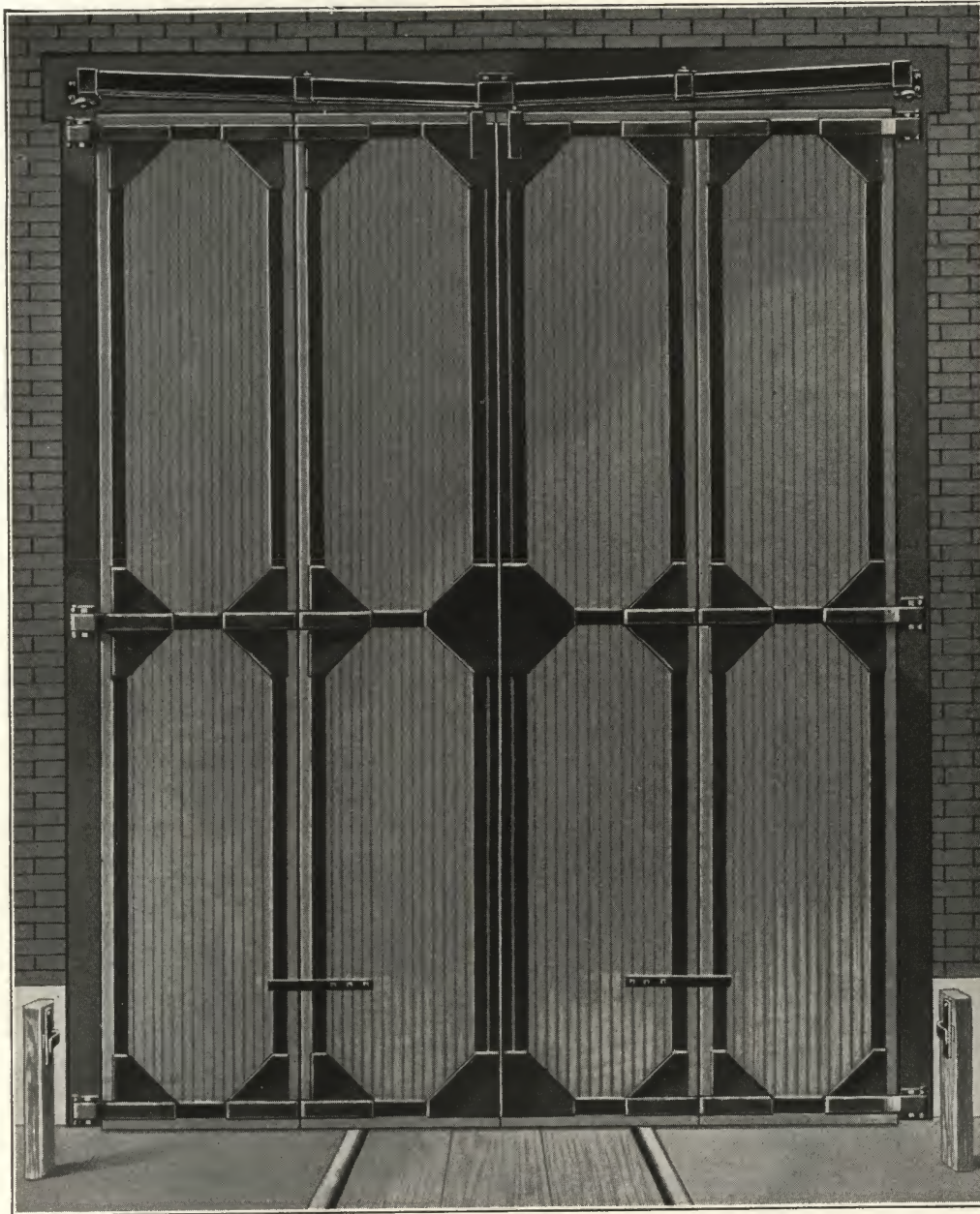


Fig. 1798—Super-Way Mill-Type Doors used in connection with No. 434 Round House Door Hardware. (See pages 244 and 245)

Tongued and grooved wood units (Fig. A-1797),  $1\frac{3}{4}$  inches square, are fitted into this frame and nailed through the tongue and groove, piece by piece to each other. The nails are thus imbedded between the strips—not a nail exposed anywhere. The strips nearest the T steel frame are nailed to the frame.

Fig. A-1795 shows the appearance of a finished door.

All of the steel members are welded together, not bolted, making a permanently strong and rigid construction. There are no bolt ends or nuts sticking out anywhere. Everything is snug and trim. The result is a door which is stronger and more durable than any door of equal thickness built on the usual lines. Sliding doors are usually  $1\frac{3}{4}$  inches thick throughout but swinging doors are built with panels  $1\frac{3}{4}$  inches thick and outer edges  $2\frac{1}{2}$  inches thick.

Figure A-1797 gives a cross-section of the standard wood members of a Super-Way Mill-Type door. Notice the wide but "shallow tongued

and grooved construction" and the slightly rounded corners. When these units are spiked every four inches they form a rigid structure of unusual strength.

Super-Way Mill-Type Doors are free from pulling apart of the wood sections. This common complaint in other doors is not experienced because the method of keying the wood members together as shown in Fig. A-1797 makes a solid, firm construction, much superior to the panelling of the ordinary door.

The wood strips are painted before assembling.

Any kind of glass for the panels will be furnished if desired.

Frames for the glass panels, of either the sliding or folding doors, will be built into the doors if so ordered.

Data concerning the glass panels, frames for the glass panels and other construction details are given on the following page.

**Detail Blue Prints and Prices of Mill-Type Doors on Application**



## Construction Details of No. 448 Super-R-Way Mill-Type Doors

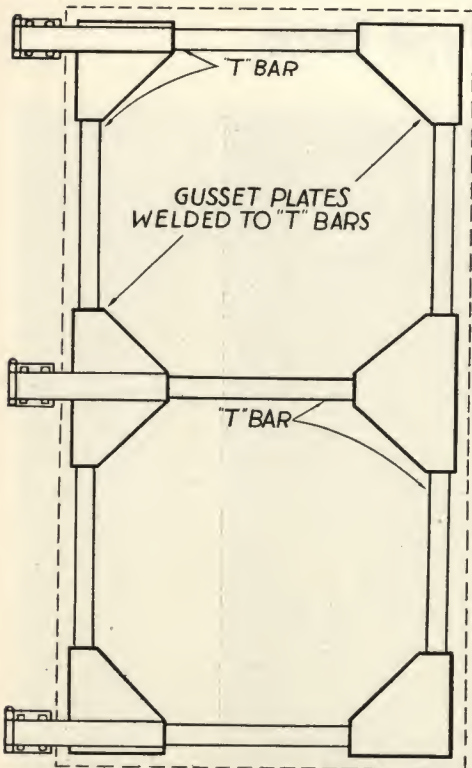


Fig. A-1799—Steel frame of a No. 448 Swinging Door. Showing hinges attached to steel frame

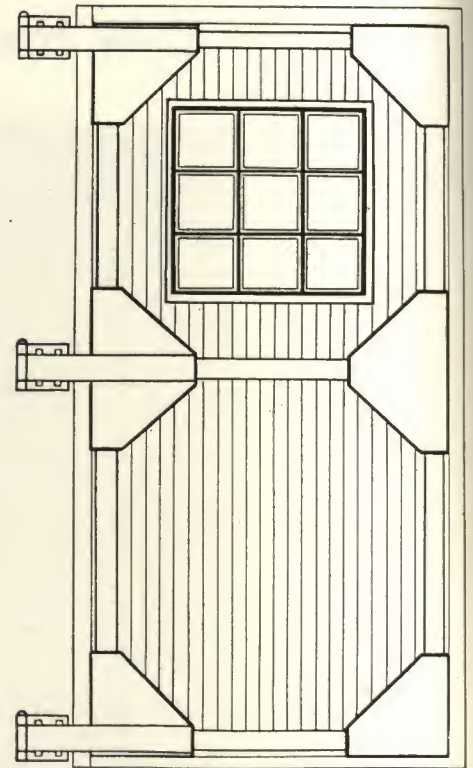


Fig. A-1805—Elevation of swinging door showing glass panel

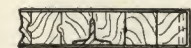


Fig. A-1800—Horizontal section at edge of sliding door

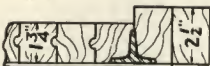


Fig. A-1801—Horizontal section at edge of swinging door

Fig. A-1802 Vertical section through top of sliding door

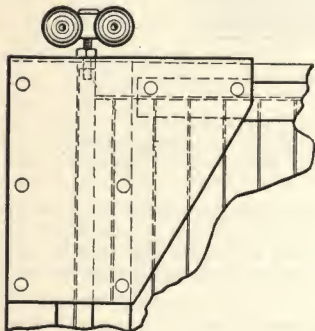


Fig. A-1803—Upper corner of sliding door showing method of attaching door hanger

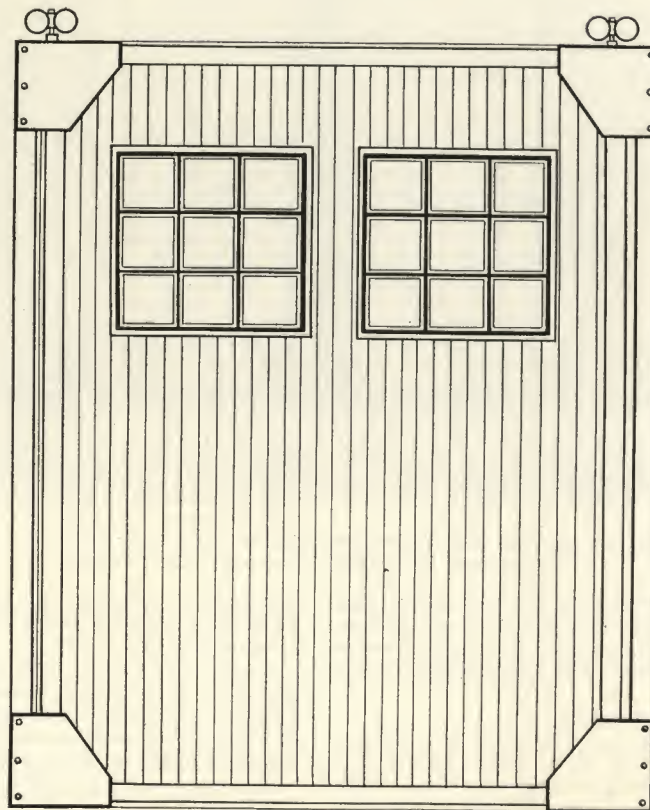


Fig. A-1804—Elevation of sliding door showing glass panels

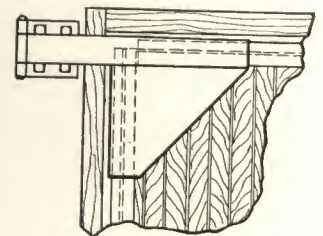


Fig. A-1806—Elevation showing hinge attached to upper corner of door

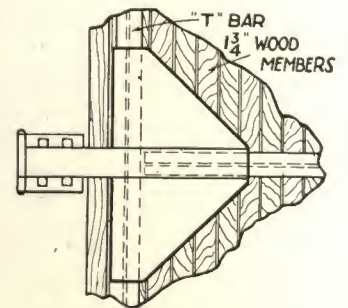


Fig. A-1807—Elevation showing hinge attached to center of door

*Detail Blue Prints and Prices of Mill Type Doors on Application*



## R-W No. 546 Laminated Panel Wood Garage Door



Fig. A-1808—Dignity and Durability Combined!

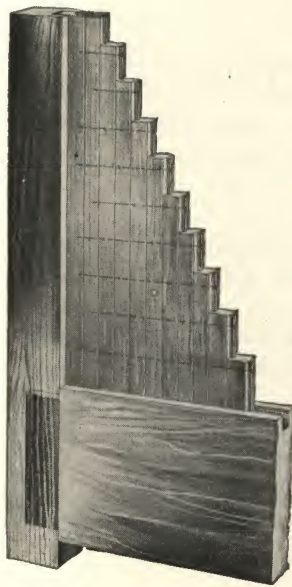


Fig. A-1809—Detail of Laminated Panel

For those of our customers who desire the utmost in excellence of Garage door construction we offer this number for their consideration.

As can be seen from the detail illustration, Fig. A-1809, the panel is built up of narrow tongued and grooved strips of wood nailed together every four inches. The nails are four inches long and extend thru two and one half strips of wood and are arranged in a staggered fashion so that the entire panel becomes a laminated section. All of the nails are concealed. The edges of the panel strips are painted before assembling, to exclude moisture. The laminated panel is designed to overcome shrinking, swelling, splitting or cracking.

Made  
In Two Heights;  
7'6" and 8'  
In Three Widths;  
2'8", 4' and 8'

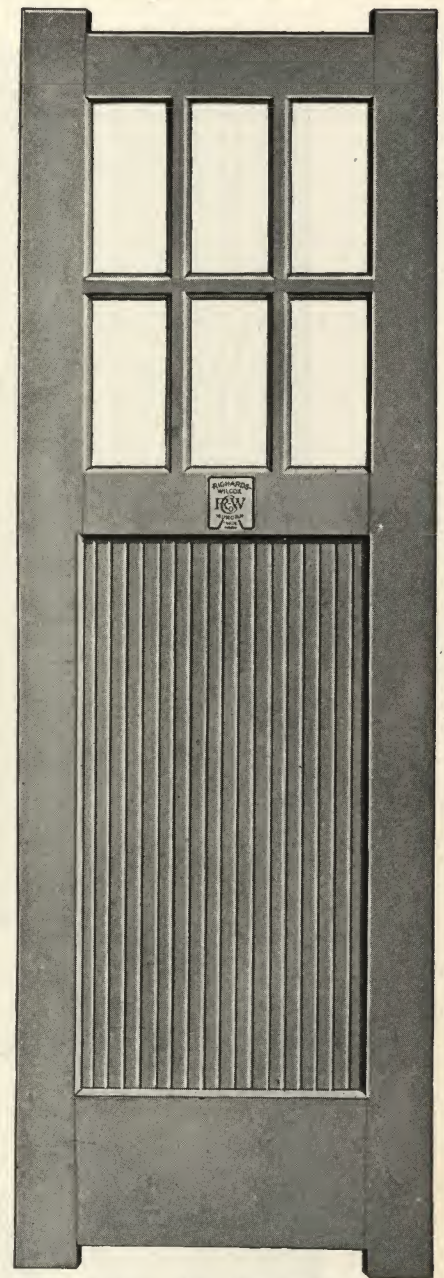


Fig. A-1810—The R-W Trade Mark Plate on each door is a guarantee of the doors high quality.

The framework of the door is one and three quarter inches thick, the stiles being mortised to receive the rails. The stiles and the upper and center rails are five inches wide, while the bottom rail is twelve inches wide.

Because of the liability of breakage due to shipping, glass is not furnished.

Every door is given one priming coat of paint.

Sizes of Doors—Choice of two heights; 7'6" or 8', and of three widths; 2'8", 4' or 8'.

Weight of Door, per square foot, 2.85 pounds.

### List Price

No. 546—Laminated Panel Garage Door, per square foot. . . . . \$1.00

Discount .....



## R-W No. 467 Galvanized Corrugated Sheet Steel Doors

for  
Airplane Hangars and Industrial Door  
Openings



The door illustrated on this page is designed especially for use on large openings such as airplane hangar doorways (shown on page 233) and for doorways in industrial buildings.

The framework of the door is made of 3 inch channels stiffened and reinforced by cross braces. The entire framework of the door is welded together to make it absolutely rigid.

Panels are made of No. 24 gauge galvanized corrugated sheet steel.

Special attachments for receiving the hardware are built into the door when required.

When two doors are hinged together, astragal plates are attached to the door to cover the joint between the doors.

Doors are built to any size required.

### List Price

No. 467—Doors with an area of 45 or more square feet. Per square foot.....\$1.50

No. 467—Doors of smaller sizes or built of different materials than specified above. Per square foot.....Prices upon Request

**Note**—See page 254 for maximum size of doors which can be shipped at regular freight rates.

*Discount*.....



## R-W No. 468 Galvanized Flat Sheet Steel Doors

for  
Airplane Hangar  
and  
Industrial Door  
Openings

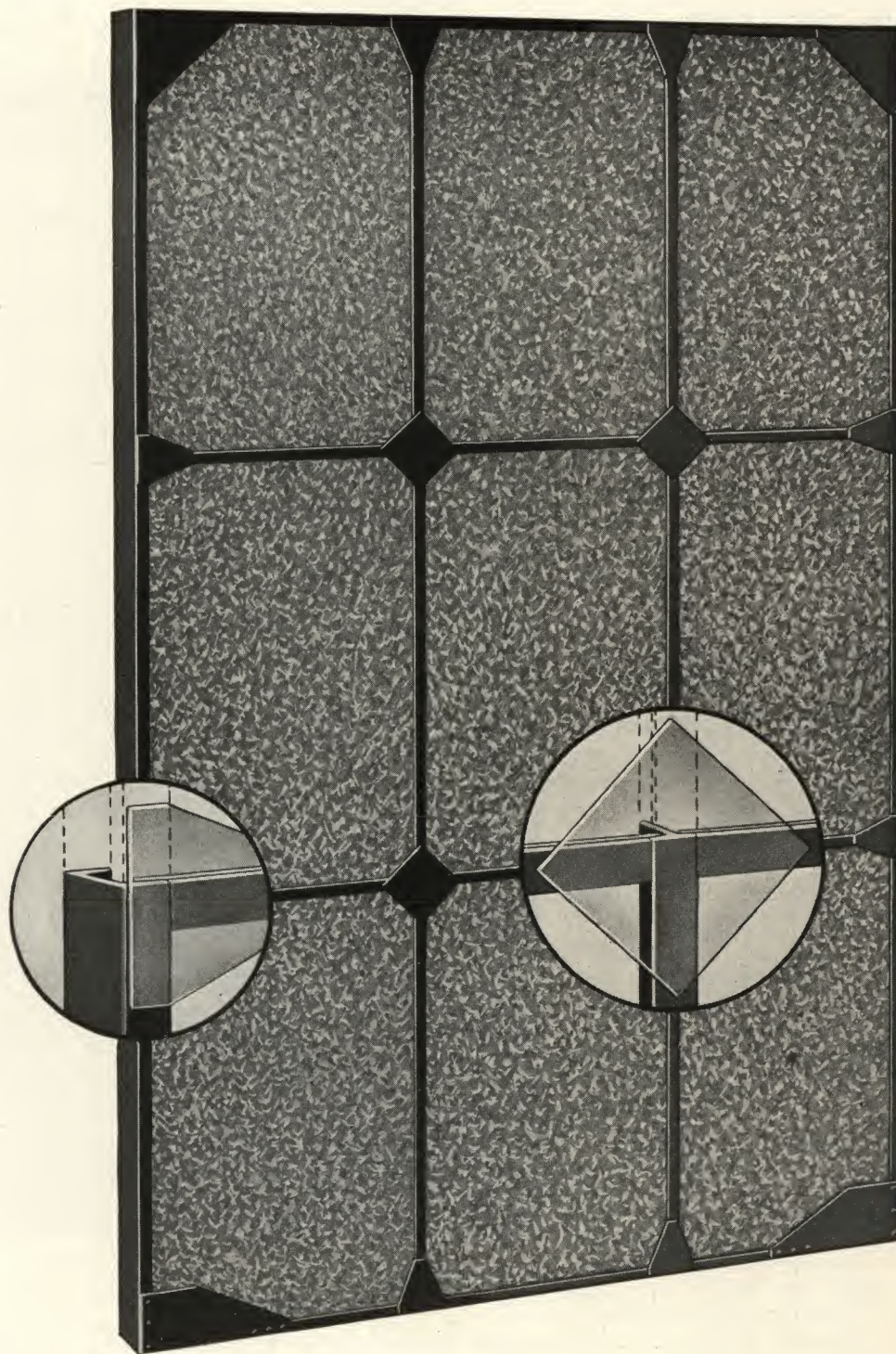
This excellent door, designed especially for airplane hangar doorways (as illustrated on page 232), is suitable for use on large doorway openings in industrial buildings.

The framework is made of 2-inch channels, with panel bars of Tees and angles all securely welded together.

The panels are made of No. 18 gauge galvanized flat sheet steel.

Special attachments for receiving the hardware are built into the door when required.

The entire door is designed of as light construction as possible to make handling easy.



### List Price

No. 468—Doors with an area of 80 or more square feet. Per square foot.....\$1.40

No. 468—Doors of smaller sizes or built of special sizes of material. Per square foot.....Prices upon Request

**Note**—See page 254 for maximum size of doors, which can be shipped at regular freight rates.

Discount.....



## R-W Approved Fire Doors

The Richards-Wilcox Manufacturing Company has the best of facilities for the manufacture of standard approved and labeled Fire Doors. The tin clad fire door has been in use a great many years and has been proven a satisfactory fire retardant so long as it is unimpaired by reason of damage to the tin covering or dry rotting of the wood core.

The "FyeR-Wall" Sheet Metal Door is a later development. It will stand a long continued exposure to fire and a high resistance to damage from ordinary use.

The National Board of Fire Underwriters classify openings in walls and partitions in five divisions.

**Class A**—Openings in division walls between separate buildings or separate sections of buildings (i. e. in fire walls).

**Class B**—Openings in enclosures to vertical communications thru buildings (i. e. vertical shafts).

**Class C**—Openings in corridors and room partitions.

**Class D**—Openings in exterior walls subject to severe fire exposure.

**Class E**—Openings in exterior walls subject to moderate fire exposure.

R-W Standard Approved Tin Clad Fire Doors and Shutters and R-W Approved "FyeR-Wall" Sheet Metal Doors shown on pages 253 to 257 are approved for protection of openings listed above.

Table for Computing the Area of Fire Doors

Door Width			Door Width			Door Width		
Feet Inches	Feet in Decimals	Add for Incline Top Square Feet	Feet Inches	Feet in Decimals	Add for Incline Top Square Feet	Feet Inches	Feet in Decimals	Add for Incline Top Square Feet
2- 0	2.000	.125	5- 9	5.750	2.066	9- 6	9.500	5.641
2- 1	2.083	.271	5-10	5.833	2.127	9- 7	9.583	5.740
2- 2	2.167	.393	5-11	5.917	2.188	9- 8	9.667	5.841
2- 3	2.250	.316	6- 0	6.000	2.250	9- 9	9.750	5.941
2- 4	2.333	.340	6- 1	6.083	2.313	9-10	9.833	6.043
2- 5	2.417	.365	6- 2	6.167	2.377	9-11	9.917	6.147
2- 6	2.500	.391	6- 3	6.250	2.441	10- 0	10.000	6.250
2- 7	2.583	.417	6- 4	6.333	2.507	10- 1	10.083	6.354
2- 8	2.667	.445	6- 5	6.417	2.573	10- 2	10.167	6.460
2- 9	2.750	.473	6- 6	6.500	2.641	10- 3	10.250	6.566
2-10	2.833	.502	6- 7	6.583	2.709	10- 4	10.333	6.673
2-11	2.917	.532	6- 8	6.667	2.778	10- 5	10.417	6.781
3- 0	3.000	.563	6- 9	6.750	2.848	10- 6	10.500	6.891
3- 1	3.083	.594	6-10	6.833	2.918	10- 7	10.583	7.000
3- 2	3.167	.627	6-11	6.917	2.990	10- 8	10.667	7.111
3- 3	3.250	.666	7- 0	7.000	3.063	10- 9	10.750	7.223
3- 4	3.333	.694	7- 1	7.083	3.136	10-10	10.833	7.335
3- 5	3.417	.729	7- 2	7.167	3.210	10-11	10.917	7.449
3- 6	3.500	.766	7- 3	7.250	3.285	11- 0	11.000	7.563
3- 7	3.583	.802	7- 4	7.333	3.361	11- 1	11.083	7.677
3- 8	3.667	.840	7- 5	7.417	3.438	11- 2	11.167	7.794
3- 9	3.750	.879	7- 6	7.500	3.516	11- 3	11.250	7.910
3-10	3.833	.918	7- 7	7.583	3.594	11- 4	11.333	8.028
3-11	3.917	.959	7- 8	7.667	3.674	11- 5	11.417	8.147
4- 0	4.000	1.000	7- 9	7.750	3.754	11- 6	11.500	8.266
4- 1	4.083	1.042	7-10	7.833	3.835	11- 7	11.583	8.386
4- 2	4.167	1.085	7-11	7.917	3.917	11- 8	11.667	8.507
4- 3	4.250	1.129	8- 0	8.000	4.000	11- 9	11.750	8.629
4- 4	4.333	1.174	8- 1	8.083	4.084	11-10	11.833	8.752
4- 5	4.417	1.219	8- 2	8.167	4.169	11-11	11.917	8.876
4- 6	4.500	1.266	8- 3	8.250	4.254	12- 0	12.000	9.000
4- 7	4.583	1.333	8- 4	8.333	4.340	12- 1	12.083	9.125
4- 8	4.667	1.361	8- 5	8.417	4.427	12- 2	12.167	9.252
4- 9	4.750	1.410	8- 6	8.500	4.516	12- 3	12.250	9.379
4-10	4.833	1.460	8- 7	8.583	4.604	12- 4	12.333	9.507
4-11	4.917	1.510	8- 8	8.667	4.695	12- 5	12.417	9.636
5- 0	5.000	1.563	8- 9	8.750	4.785	12- 6	12.500	9.766
5- 1	5.083	1.615	8-10	8.833	4.877	12- 7	12.583	9.896
5- 2	5.167	1.669	8-11	8.917	4.969	12- 8	12.667	10.028
5- 3	5.250	1.723	9- 0	9.000	5.063	12- 9	12.750	10.160
5- 4	5.333	1.778	9- 1	9.083	5.157	12-10	12.833	10.293
5- 5	5.417	1.834	9- 2	9.167	5.252	12-11	12.917	10.428
5- 6	5.500	1.891	9- 3	9.250	5.348	13- 0	13.000	10.563
5- 7	5.583	1.948	9- 4	9.333	5.444			
5- 8	5.667	2.007	9- 5	9.417	5.542			

To calculate the area of Fire Doors:

**Flush Doors:** Multiply width of opening in feet by height of opening in feet.

**Square Top Lap Doors.** Obtain size of door by adding 8 inches to width and 4 inches to height of opening. Multiply width of door in feet by height of door in feet.

**Inclined Top Lap Doors.** Obtain width of door by adding 8 inches

to width of opening, and obtain height of low side of doors by adding 4 inches to height of opening. Multiply width of door in feet by height of low side of door in feet and add the quantity opposite the "width of door" in third column of table above.

Decimal equivalents of feet and inches are given in second column of table. The decimal equivalents apply to heights as well as width of door.



## R-W No. 447 "FyeR-Wall" Corrugated Sheet Metal Doors Or Window Shutters

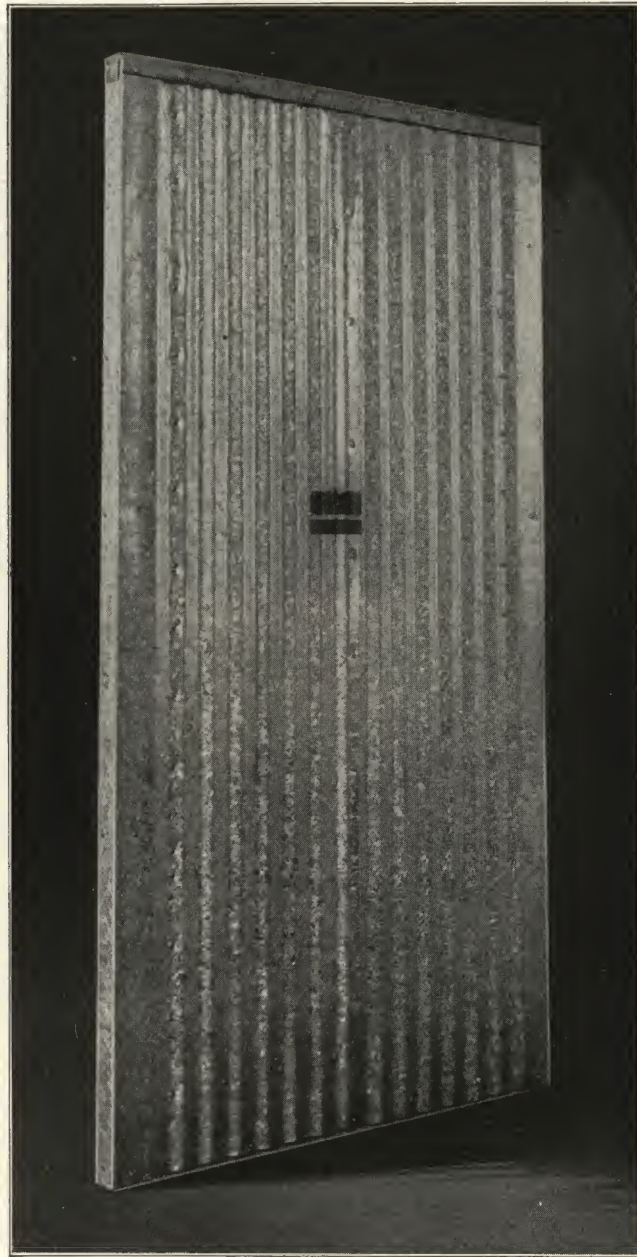


Fig. A-1811—Doors Bear the Underwriters' Label

"FyeR-Wall" Sheet Metal Doors are especially recommended for fire wall openings because of their high resistance to the direct conduction of heat. The door is capable of withstanding without destruction severe and long continued exposure to fire. The doors are constructed entirely of non-combustible materials.

There is no difference between a fire door and a window shutter. The construction and materials of both are identical. The fixtures when applied determine whether it is to be a fire door or a window shutter.

Inspected by the Underwriters' Laboratories, Inc., under direction of the National Board of Fire Underwriters. Doors or window shutters bear the Underwriters' label.

These doors show an exceptionally low maintenance cost in comparison with tin clad doors, the core of which is subject to dry rot. The tin covering is also much lighter than the material of which the "FyeR-Wall" door is built and can be much more easily damaged.

The body of the door consists of two thicknesses of galvanized corrugated sheet steel, between which is placed a layer of sheet asbestos. The corrugations on the wall side of the door are horizontal and on the exposed side of the door the corrugations are vertical.

The vertical outside frame members of the door consist of a heavy angle and a light angle. The edge of the corrugated sheet on the exposed side of the door is flattened out and bent around the heavy angle of the frame which presents a neat finished appearance without exposed raw edges of steel. The light angle covers the end of the horizontal corrugated sheets on the wall side of the door. The top and bottom horizontal frame members are heavy bars of steel which are completely covered with galvanized sheet metal.

Allowances are made in the construction of the door so that when exposed to heat, all parts can expand freely without distorting the shape of the door. Therefore, in case of fire, the door will retain its normal position close to the

wall, successfully preventing the passage of flames.

Built in either square top or incline top and can be mounted with sliding door hardware or with lap or flush types of swinging door hardware or vertical door hardware.

The construction of the door is exceptionally rigid so that it will maintain its shape under all conditions. The door is especially good in places where subjected to rough usage and where tin clad doors would easily be damaged.

The thickness of the door is  $2\frac{5}{8}$ ".

Weight about five pounds per square foot.



## R-W No. 447 "FyeR-Wall" Corrugated Sheet Metal Doors and Window Shutters

(Continued)

Doors for openings not exceeding the following dimensions are furnished with labels of the National Board of Fire Underwriters. When so required doors can be furnished with labels of the Factory Mutual Laboratories.

Single sliding doors for openings not more than 120 square feet with neither width nor height exceeding 12 feet.

Openings for single swinging doors not exceeding 6 feet in width and 12 feet in height and swinging doors in pairs for opening not exceeding 10 feet in width and 12 feet in height.

Certificates of inspection showing that doors have been built according to standard rules, can be furnished for doors larger than listed above when so required, if asked for at time order is given.

### Doors with Glass Panels

Glass Panels installed in "FyeR-Wall" Corrugated Sheet Metal Fire Doors are illustrated and described on next page.

### Sectional Doors

The maximum sizes of doors which can be shipped at regular freight rates are as follows: 7 ft. x 22 ft., 7 ft. 6 in. x 14 ft.; 7 ft. 10 in. x 12 ft. 4 in.; 8 ft. 2 in. x 10 ft. 4 in.

Doors larger than the above take special freight rates, but where doors are to cover large openings they may be built in sections not exceeding the sizes given above to be bolted together in the field. Generally sectional doors can be kept within the limits of standard freight rates.

### Wicket Doors

Wicket doors not exceeding 2 feet 6 inches wide by 7 feet high may be built into the larger doors when so required at an additional price.

### Directions for Ordering

**State: First**—Width and height of opening.

**Second**—Are doors to be square top or incline top? If incline top state whether right or left hand. Doors which slide to the right when opening are right hand doors.

**Third**—State method of mounting doors; whether single sliding, sliding doors in pairs, single swing, swinging doors in pairs or vertical doors.

**Fourth**—State class of opening in building which doors protect—opening in fire wall, opening in vertical shaft,

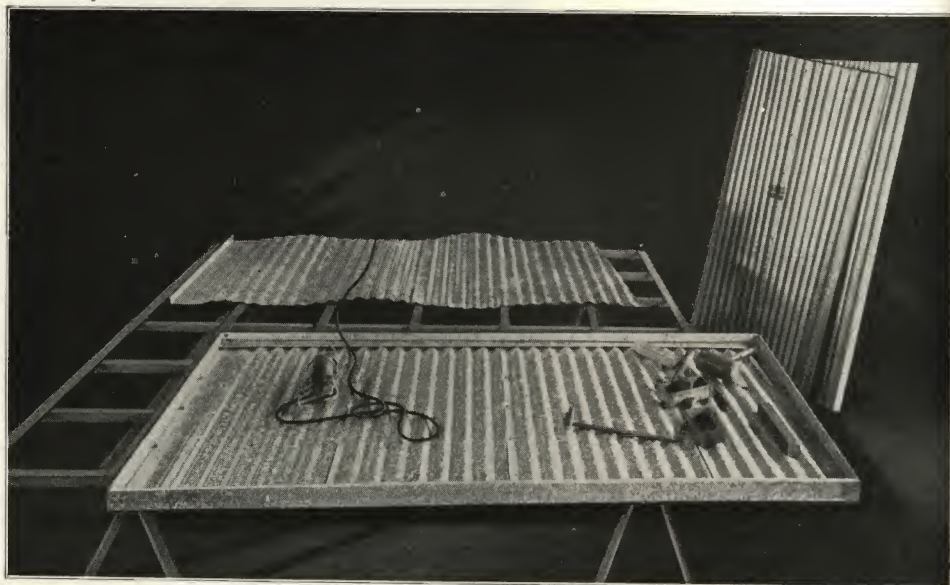


Fig. A-1812—"FyeR-Wall" Corrugated Steel Doors in process of construction, showing practically completed door in foreground; steel corrugated back in left background; two steel corrugated front faces in right background.

Fig. A-1813—Section of door showing construction—steel frame; steel face, with vertical corrugations; asbestos filler-insulator; and steel back with corrugations horizontal.

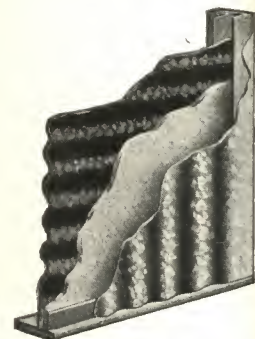


Fig. A-1813

opening in corridor or room partition, opening to exterior fire escape or openings in exterior walls.

Openings to exterior fire escapes are of the swinging type only.

**Fifth**—If glass panels are wanted, state number and size of panels.

**Sixth**—If wicket door is wanted, send sketch showing size and location in the door.

**Seventh**—If doors are to be built in sections, it should be so stated.

### List Prices Quoted on Application

#### Window Shutters

Corrugated sheet metal window shutters are made of the same material in the same manner and with the same care as are the fire doors mentioned above. Prices upon application. Fixtures for Window Shutters listed on page 319.



## Doors With Glass Panels

for

**Tin Clad  
Fire Doors**



Fig. A-1814

**Corrugated Sheet Metal  
Fire Doors**



Fig. A-1815

Inspected by the Underwriters' Laboratories, Inc.,  
under direction of the  
National Board of Fire Underwriters.  
Doors with Glass Panels Bear the Underwriters' Label.

### Doors with Glass Panels

Doors for class C situations (see page 252) may be furnished with one or more wire glass panels if desired. Maximum area of each glass not to exceed 1296 square inches, with neither height nor width exceeding 54 inches. Doors for class E situations (see page 252) may be furnished with one or more glass panels not exceeding 720 square inches in area with neither height nor width exceeding 54 inches. Minimum distance from edge of glass panel opening to side of door, 7 inches.

**Prices of Doors With Glass Panels Furnished Upon Application**



## R-W No. 446 Standard Tin Clad Fire Doors and Window Shutters



Fig. A-1816—Very large Sliding Tin Clad Fire Doors Specially constructed for the Chicago Motor Coach Co.

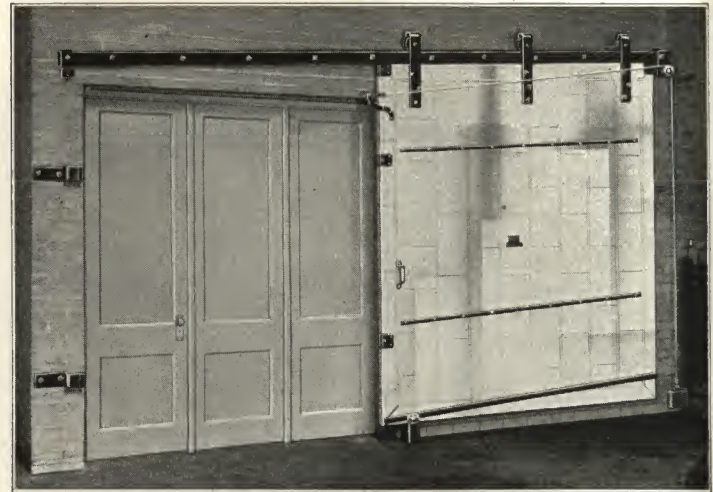


Fig. A-1817—Large Size Sliding Fire Door. Used at Openings in Corridor or Room Partition Walls.

Who buys imperfect fire-door protection, is accessory to the destruction of his own property

A "leaky" fire door will not shut out flames any more than a leaky hull will shut out water, and any man responsible for the purchase of fire doors should make certain that the doors he buys are built on a fundamental foundation of conscientious workmanship and design, so that in case of a fire, he will enjoy the satisfying experience of having his fire door equipment actually stop the flames and save his plant and business.

Such satisfying experiences, which have saved millions of dollars from the clutches of the red demon, are accredited to R-W Fire Doors by actual record. For that reason, persons interested in fire doors, can, we believe, gain valuable knowledge from a brief study of the illustrations on the following page which show R-W fire doors in process of construction.

The first step in the manufacture of R-W "tin-clad" fire doors, which is the type most commonly installed—because of its low cost, is the building of the "core".

This step is highly consequential. The core of a successful tin-clad door must be strong to endure the results of service and perfect to to resist the effects of climate, atmosphere and other natural influences during the years.

The core may be either 2-ply or 3-ply, depending upon the situation in which the door is to be used.

**Standard 2-ply (1¾ inch) doors** are made of two layers of tongue-and-groove lumber, each layer dressed to 13-16 inch full, with one layer vertical and the other horizontal; thoroughly fastened together by wrought iron

clinched nails not over 8 inches apart, surfaces of the door smooth; double lock joints in the tin covering as required under the rules of the National Board of Fire Underwriters. Weight 6 pounds per square foot.

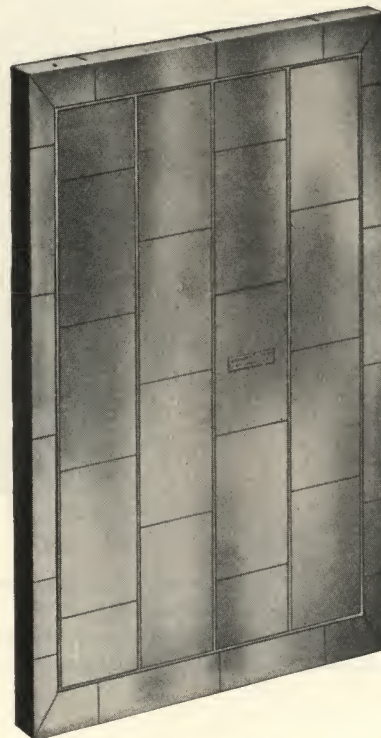


Fig. A-1818—Average Size Tin Clad Fire Door. Inspected by Underwriters' Laboratories (Inc.) Under Direction of the National Board of Fire Underwriters.

**Standard 3-ply (2⅝ inch) doors** are made of three layers of tongue-and-groove lumber, each layer dressed to 13-16 inch full, the outside layers vertical and the inner layer horizontal; these layers are fastened together and the door tin covered in the same manner as are the 2-ply doors just described. Weight, 8 pounds per square foot.

The wood is non-resinous.

The boards are 6" wide. They are nailed through with clinch nails at each intersection. This makes warping impossible. Seams, which would be disastrous in event of fire, cannot occur.

Applying the tin covering, is also a serious matter. The covering must be perfect, must be tight. All the joints in the covering of R-W tin-clad fire doors have double-locked seams, with nails in each joint. When the seams are ironed down, the nail heads are concealed under the last lap of the seam so that the finished door presents a smooth flat surface in which no nail heads whatever appear.

The pictures reveal how the individual face plates are tightly interlocked and thoroughly nailed to the core.

This tightly interlocked construction keeps air away from the wood core and the absence of oxygen prevents flame. In case of severe fire, the wood core becomes a body of charcoal under the intense heat.

Built in either square top or incline top and can be mounted with sliding door hardware or with lap or flush types of swinging door hardware or vertical door hardware.

Standard Doors with labels can be furnished for any size opening required but Underwriters recommend that wherever possible the openings should not exceed the following sizes.

(See next page)



## R-W No. 446 Standard Tin Clad Fire Doors and Window Shutters



Fig. A-1820—  
Showing  
clinched nail  
through core.

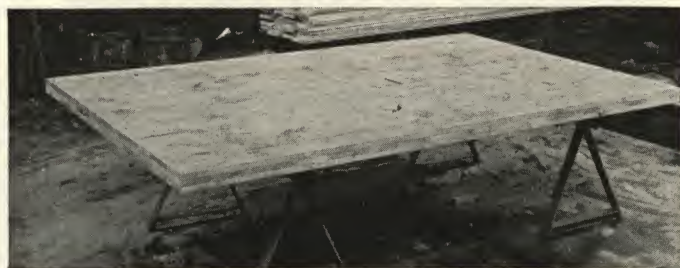


Fig. A-1819—The core of the successful Tin-Clad Fire Door must be perfect.

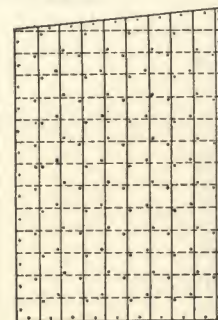


Fig. A-1824—Showing  
nailing in wood  
core.



Fig. A-1821—Horizontal  
seam in tin—lock  
joint.

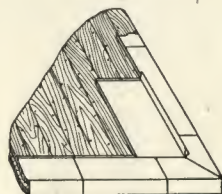


Fig. A-1822—Showing  
tin applied to  
edges of door and  
first plates applied.

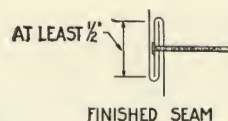


Fig. A-1823—Vertical  
seam in tin—lock  
joint.

(Continued)

Single Sliding Doors for openings 120 square feet in area, with maximum width or height not exceeding 12 feet.

Swinging Doors in pairs for openings, width not exceeding 10 ft. and height not exceeding 12 feet.

Single Swinging Doors for openings, width not to exceed 6 ft. and height not to exceed 12 feet.

NOTE: When so desired, doors can be furnished with labels of the Factory Mutual Laboratories.

Doors for class A (see page 252) openings in fire walls must be three-ply. Doors or shutters for classes B, C, D and E (see page 252) openings may be either two or three-ply. It is usually advisable to consult the local representative of the Underwriters in regard to thickness of doors to be used.

### Sectional Doors

The maximum sizes of doors which can be shipped at regular freight rates are as follows: 7 ft. x 22 ft.; 7 ft. 6 in. x 14 ft.; 7 ft. 10 in. x 12 ft. 4 in.; 8 ft. 2 in. x 10 ft. 4 in. Doors larger than the above take special freight rates but where doors are to cover large openings they may be built in sections not exceeding the sizes given above to be bolted together in the field. Generally sectional doors can be kept within the limits of standard freight rates.

### Directions for Ordering Tin Clad Doors

State: First—Width and height of opening.

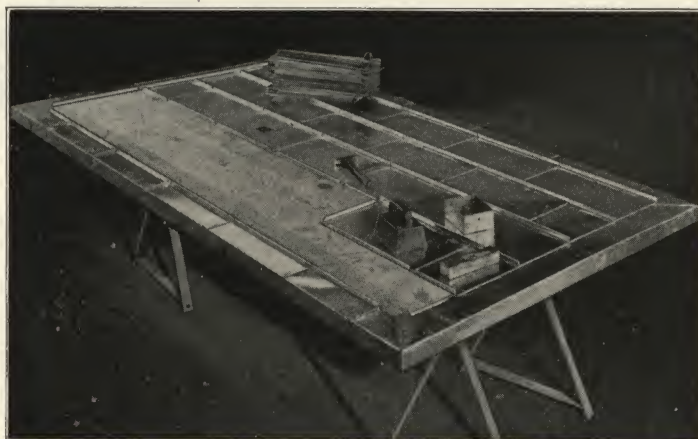


Fig. A-1825—The individual plates are tightly interlocked and thoroughly nailed to the core, nail heads being concealed under the lap of the seam.

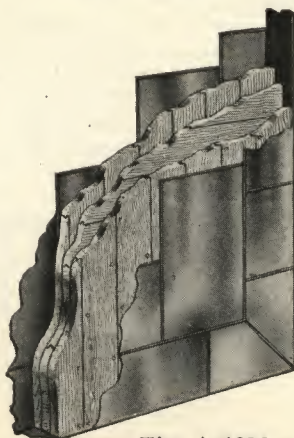


Fig. A-1826—  
Showing layers of wood core  
—horizontal and vertical.

**Second**—Are doors to have square top or inclined top? (If inclined top state which way the door will move in opening, to the right hand or to the left hand).

**Third**—State method of mounting doors whether single sliding, sliding doors in pairs, single swing, swinging doors in pairs or vertical doors.

**Fourth**—State class of opening in building which doors protect; opening in fire wall, opening in vertical shaft, opening in corridor or room partition, opening to exterior fire escape or openings in exterior walls. Opening to exterior fire escapes are of the swinging type only.

**Fifth**—If glass panels are wanted, state number and size of panels. (See Page 255.)

**Sixth**—If doors are to be built in sections it should be so stated.

Prices for Tin Clad Doors Quoted on Application.

### Standard Fire Shutters (Tin Clad)

Are made of the same materials and in the same manner as are the 2-ply (1 3/4 inch) fire doors and are of the same thickness. They are used on the outside of buildings to protect window openings.

### Glass Panels

Glass Panels installed in tin clad fire doors are illustrated and described on page 255.

### Notched and Rabbetted Doors

Doors that are either notched or rabbetted are not standard, must be made to special order and can not bear the Underwriters' Label, Prices on application.



## R-W No. 649 Horizontal Turnover Warehouse Door Fixtures



Fig. A-1827—Interior View of a Typical R-W No. 649 Installation

The R-W Horizontal Turnover Door meets a long-felt want for a practical warehouse door. The door is applicable to openings of all kinds, but is especially suitable where ceilings prevent the use of a vertical door, where obstructions at the side of the opening prohibit the use of the ordinary sliding door, or where entire side of the building must be open at the same time. The R-W Horizontal Turnover Door, when open, is entirely out of the way.

The following list price includes hangers, track, ceiling suspension rods, latches and other fixtures for the different openings listed, in the non-automatic type for warehouse doors. Fixtures packed complete with all bolts and screws for attaching parts to door, and heavy cast washers for wall bolts.

Weight box, as shown, is not included in prices.

Wall bolts are not included, but will be furnished on request at moderate price if thickness of wall is given. Fixtures for openings up to 8 feet high, require for vertical

tracks, eight  $\frac{3}{4}$ -inch diameter machine bolts; length equals thickness of wall plus  $4\frac{1}{2}$  inches. For openings over 8 feet high, 10 machine bolts are required for vertical tracks. Fixtures mounted as details "A" or "B" (see page 261) require 7 additional machine bolts  $\frac{3}{4}$ -inch diameter; length equals thickness of wall plus  $2\frac{1}{2}$  inches. Fixtures mounted as details "C" or "D" (see page 261) require 9 additional machine bolts, and fixtures mounted according to details "E" (Pg. 259), "F" or "G" (see page 261) require 8 additional machine bolts. Lag screws for latches are packed regularly, but if keepers are to be attached to brick or concrete, 4 expansion shields for  $\frac{1}{2}$ -inch bolts are required (not included in list price of sets.) Counterweights are not included in list price of sets but are furnished in amounts required at prices listed on page 265. Counterweights equal to 60% of the weight of the door are required on simple counterweighting, and weights equal to 120% of the weight of the door are required for compounding counterweights.

### List Price

For Simple Counterweights			For Compounded Counterweights	
Height of Opening, Feet	List Price Detail A-B-E	List Price Detail C-D	Height of Opening, Feet	List Price Detail F-G
7	\$60.00	\$66.00	7	\$66.00
8	61.00	67.00	8	67.00
9	63.00	70.00	9	70.00
10	64.00	71.00	10	71.00

**Note**—The average shipping weight of a set of fixtures, less weights, equals about 275 lbs.

*Discount* .....



R-W No. 649

## Horizontal Turnover Warehouse Door Fixtures (Cont.)

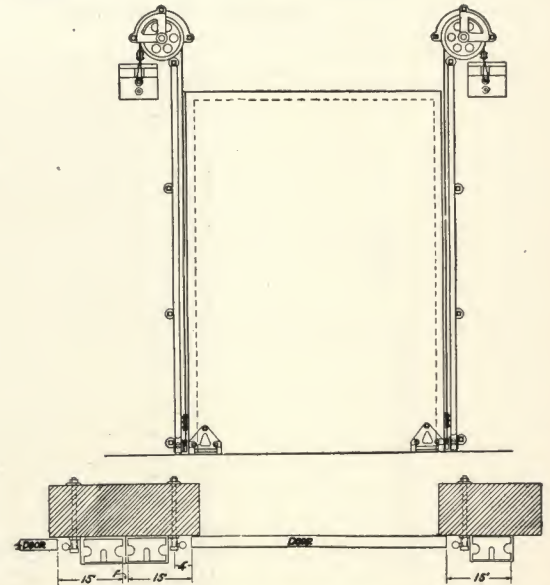
### Directions for Ordering

State width and height of opening (mention width first), thickness of doors, lap of doors at side and top, available wall space at both sides and above opening; whether doors are located in outside walls or partition walls, also whether locks are to be operated from one side or both sides of door.

State whether hanger rods for horizontal track are to be attached to roof, ceiling or beams, giving distance from top of opening to supporting members and show location of joists or beams if hanger rod is to be attached to beams. If to be attached to roof, describe same, stating thickness and material from which it is built. If to be attached to concrete floors above, state thickness of same.

**Note**—See page 261 for different methods of counter-weighting and minimum side wall clearances.

The following table shows the amount of space required above the door, using simple counterweights.



**Detail E**—Simple counterweights on both sides of door. Suitable for warehouse doors only.

### Overhead Clearances for Warehouse Doors—Simple Counterweights

Weight of Door	Space Required Above Door (not opening)				
	Weight as detail "A"	Weight as detail "B"	Weight as detail "C"	Weight as detail "D"	Weight as detail "E"
100 lbs.	19 "	15 1/2"	23 3/4"	24 1/2"	16 "
200 lbs.	24 3/4"	15 1/2"	27 1/4"		19 "
300 lbs.	30 1/2"	15 1/2"			22 "
400 lbs.	36 1/4"	15 1/2"	29 "	26 1/2"	24 3/4"
500 lbs.	42 1/2"	15 1/2"	33 1/4"	28 "	27 3/4"
600 lbs.	47 1/2"	15 1/2"	35 1/2"	30 "	30 1/2"
700 lbs.	53 1/4"	15 1/2"	38 1/4"	32 "	33 1/2"
800 lbs.	59 1/2"	15 1/2"	41 3/4"	33 1/2"	36 1/4"
900 lbs.	65 1/4"	15 1/2"	44 "	35 1/2"	39 1/4"
1000 lbs.	70 "	15 1/2"	46 1/2"	37 "	42 1/2"

Where there is insufficient space above the door as shown in the table above, it is necessary to compound the counterweights in which case the following table applies.

### Overhead Clearances for Warehouse Doors—Compounded Counterweights

Door Height	7 feet	8 feet	9 feet	10 feet		7 feet	8 feet	9 feet	10 feet
Weight of Door	Space Required Above Door (not opening)					Space Required Above Door (not opening)			
	Weight as Detail—"F"					Weight as Detail "G"			
100 lbs.	15½"	15½"	15½"	15½"		.....	.....	.....	.....
200 lbs.	15½"	15½"	15½"	15½"		.....	.....	.....	.....
300 lbs.	15½"	15½"	15½"	15½"		.....	.....	.....	.....
400 lbs.	24 "	18 "	15½"	15½"		15½"	15½"	15½"	15½"
500 lbs.	35 "	29 "	23 "	17 "		15½"	15½"	15½"	15½"
600 lbs.	45 "	39 "	33 "	27 "		15½"	15½"	15½"	15½"
700 lbs.	.....	52 "	46 "	40 "		15½"	15½"	15½"	15½"
800 lbs.	.....	.....	57 "	51 "		.....	16 "	15½"	15½"
900 lbs.	.....	.....	.....	63 "		.....	22 "	16 "	15½"
1000 lbs.	.....	.....	.....	.....		.....	.....	23 "	15½"



## R-W Horizontal Turnover Fire Door Hardware

R-W No. 649-2 For Two-ply ( $1\frac{3}{4}$ ) Tin Clad Doors

R-W No. 649-3 For Three-ply ( $2\frac{5}{8}$ ) Tin Clad Doors

Can be Furnished for "FyeR-Wall" Sheet Metal Doors When Required

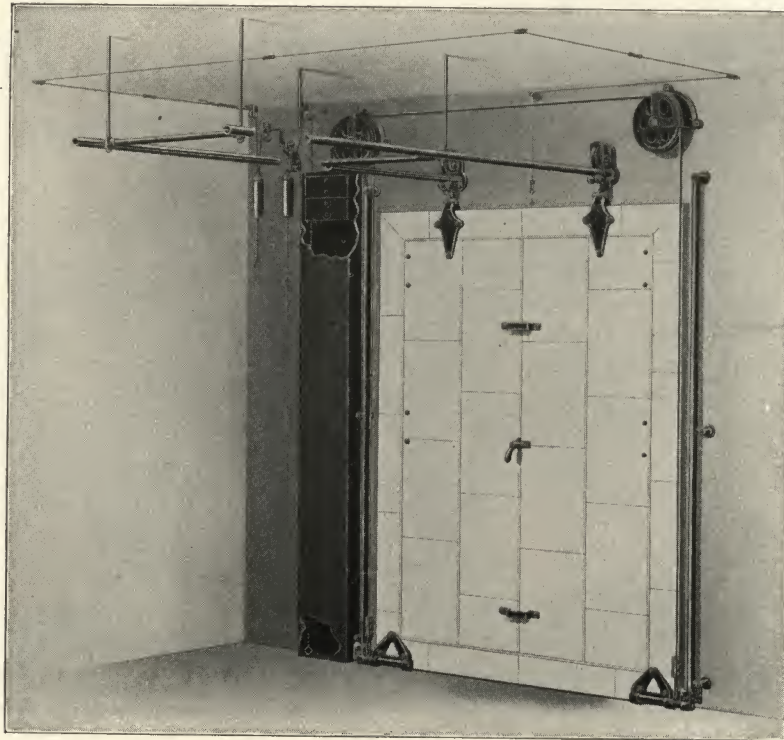


Fig. A-1828—No. 649 Fire Door Fixtures Applied to Tin Clad Fire Door.  
Door in Closed Position

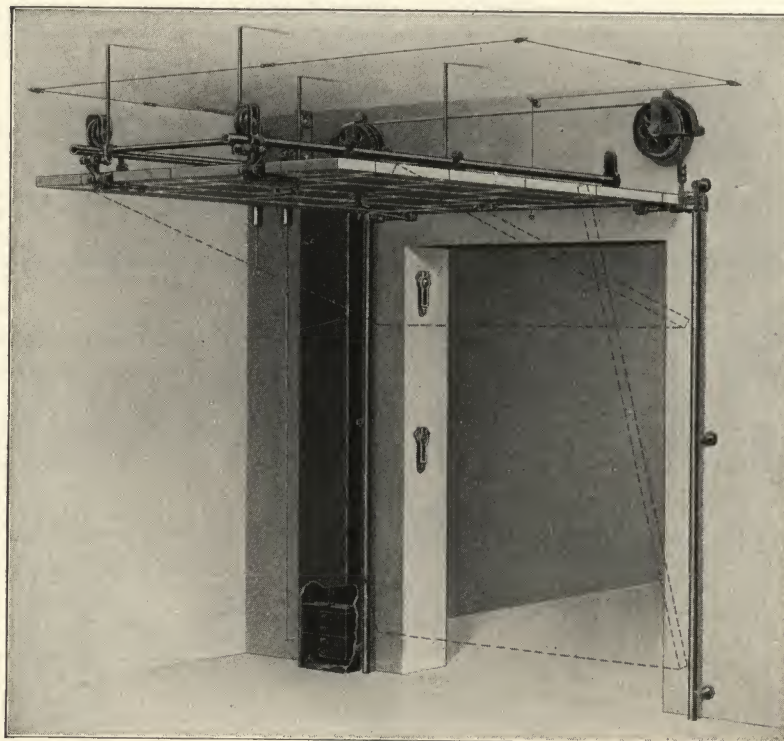


Fig. A-1829—No. 649 Fire Door Fixtures Applied to Tin Clad Fire Door.  
Door in Open Position.







R-W No. 649

## Horizontal Turnover Fire Door Fixtures (Cont.)

The R-W Horizontal Turnover Door is the most practical device on the market. It is applicable to openings of all kinds, but is especially adapted for use where ceilings prevent the use of a vertical door, where obstructions at the side

of the opening prohibit the use of the ordinary sliding door and is suitable for openings on freight elevator shafts. When this door is in open position, it is entirely out of the way. It is equipped with our automatic closing device.

### List Price

The following list price includes hangers, track and fixtures, including automatic closing device. These prices are based on openings having sufficient head room and side wall space, so it is not necessary to compound counterbalance weights (see details, page 261). Prices and clearances for hardware with compounded counterweights given on page 263. Fixtures packed complete with all bolts and screws for attaching parts to door and heavy cast washers for wall bolts. Weight box, as shown, is not included in prices.

Wall bolts are not included, but will be furnished on request, at moderate price if thickness of wall is given. Fixtures for openings up to 8 feet high, require for vertical tracks, eight  $\frac{3}{4}$ -inch diameter machine bolts; length equals thickness of wall plus  $4\frac{1}{2}$  inches. For openings over 8 feet high, 10 machine bolts are required for vertical tracks.

Fixtures mounted as details "A" or "B" (see page 261), require 7 additional machine bolts  $\frac{3}{4}$ -inch diameter; length equals thickness of wall plus  $2\frac{1}{2}$  inches. Fixtures mounted as details "C" or "D" (see page 261), require 9 additional machine bolts; and fixtures mounted according to details "F" or "G" (see page 261), require 8 additional machine bolts. No. 649-2123 Latches are generally furnished for fire doors. Eight  $\frac{1}{2}$ -inch x 4-inch expansion bolts are required for attaching keepers to walls.

Counterweights are not included in list price of sets but are furnished in amounts required at prices listed on page 265. Counterweights equal to 60% of the weight of the door are required on simple counterweighting, and weights equal to 120% of the weight of the door are required for compounding counterweights.

### Overhead Clearances and List Prices—Simple Counterweights

Size of Opening  (feet)	Space Required Above Opening, (not door)								List Price Detail A-B	List Price Detail C-D
	Weight as Detail A (Page 261)		Weight as Detail B (Page 261)		Weight as Detail C (Page 261)		Weight as Detail D (Page 261)			
	2-ply door (inches)	3-ply door (inches)	2-ply door (inches)	3-ply door (inches)	2-ply door (inches)	3-ply door (inches)	2-ply door (inches)	3-ply door (inches)		
4x 7	26½	30	19½	19½	27	29	25½	26½	\$80.00	\$87.00
5x 7	29½	34	19½	19½	28	30½	26	27½		
6x 7	32	37	19½	19½	29	32½	27	28		
7x 7	34½	40½	19½	19½	30	34	27½	29	\$81.00	\$88.00
8x 7	37½	44	19½	19½	31	35½	28	30		
9x 7	40	47	19½	19½	32	37	29	31		
10x 7	42½	50½	19½	19½	33	39	29½	32½	\$84.00	\$92.00
4x 8	29	33	19½	19½	28	30	26	27		
5x 8	31½	36½	19½	19½	29	32	27	28½		
6x 8	34½	40½	19½	19½	30	34	27½	29½	\$85.00	\$93.00
7x 8	37½	44	19½	19½	31	36	28	31		
8x 8	40½	47½	19½	19½	32	38	29	32½		
9x 8	43½	51½	19½	19½	33	40	29½	34	\$85.00	\$93.00
10x 8	46	55	19½	19½	34	42	30	35		
4x 9	30½	35	19½	19½	28½	31½	26½	28		
5x 9	33½	39	19½	19½	30	33	27½	29	\$85.00	\$93.00
6x 9	37	43½	19½	19½	31½	35	28½	31		
7x 9	40½	47½	19½	19½	33	38	29½	33		
8x 9	44	52	19½	19½	34½	41	30½	35	\$85.00	\$93.00
9x 9	47	56	19½	19½	36	42	31½	36		
10x 9	50	60½	19½	19½	37½	43½	32½	37		
4x10	32	37	19½	19½	29	32½	27	28	\$85.00	\$93.00
5x10	35½	41½	19½	19½	30½	34½	27½	29½		
6x10	39	46	19½	19½	32	37	28½	31		
7x10	43	51	19½	19½	34	39	29	32½	\$85.00	\$93.00
8x10	47	56	19½	19½	35½	42	30	35		
9x10	50½	60½	19½	19½	37	44	31	37		
10x10	54	65	19½	19½	39	46	32	38½		

**Note**—The average shipping weight of a set of fixtures less weights, equals about 275 lbs. Directions for ordering shown on next page.

**Discount**.....



R-W No. 649

## Horizontal Turnover Fire Door Fixtures (Cont.)

### Overhead Clearances and List Price—Compound Counterweights

Size of Opening (feet)	Space required above opening (not door)				List Price
	Weights as Detail F (page 261)		Weights as Detail G (page 261)		
	2-ply Door (inches)	3-ply Door (inches)	2-ply Door (inches)	3-ply Door (inches)	
4 x 7	19½	19½	19½	19½	\$85.00
5 x 7	19½	19½	19½	19½	
6 x 7	19½	22	19½	19½	
7 x 7	19½	30	19½	19½	
8 x 7	19½	36	19½	19½	
9 x 7	24½	43	19½	19½	
10 x 7	29	50	19½	19½	
4 x 8	19½	19½	19½	19½	\$87.00
5 x 8	19½	19½	19½	19½	
6 x 8	19½	23	19½	19½	
7 x 8	19½	31	19½	19½	
8 x 8	19½	37	19½	19½	
9 x 8	25½	46	19½	19½	
10 x 8	31	54	19½	19½	
4 x 9	19½	19½	19½	19½	\$90.00
5 x 9	19½	19½	19½	19½	
6 x 9	19½	25	19½	19½	
7 x 9	19½	31	19½	19½	
8 x 9	19½	39½	19½	19½	
9 x 9	25	48	19½	19½	
10 x 9	31	57	19½	19½	
4 x 10	19½	19½	19½	19½	\$91.00
5 x 10	19½	19½	19½	19½	
6 x 10	19½	23	19½	19½	
7 x 10	19½	32½	19½	19½	
8 x 10	19½	42	19½	19½	
9 x 10	25	51½	19½	19½	
10 x 10	32½	61	19½	19½	

**Note**—The average shipping weight of a set of fixtures, less weights, equals about 275 lbs.

**Discount**.....

**Directions for Ordering**—State width and height of opening (mention, width first), thickness of doors, lap of doors at side and top (should be 4 in.), available wall space at both sides and above opening; if doors are located in outside walls or partition walls, also if locks are to be operated from one side or both sides of door. State if hanger rods for horizontal track are to be attached to roof,

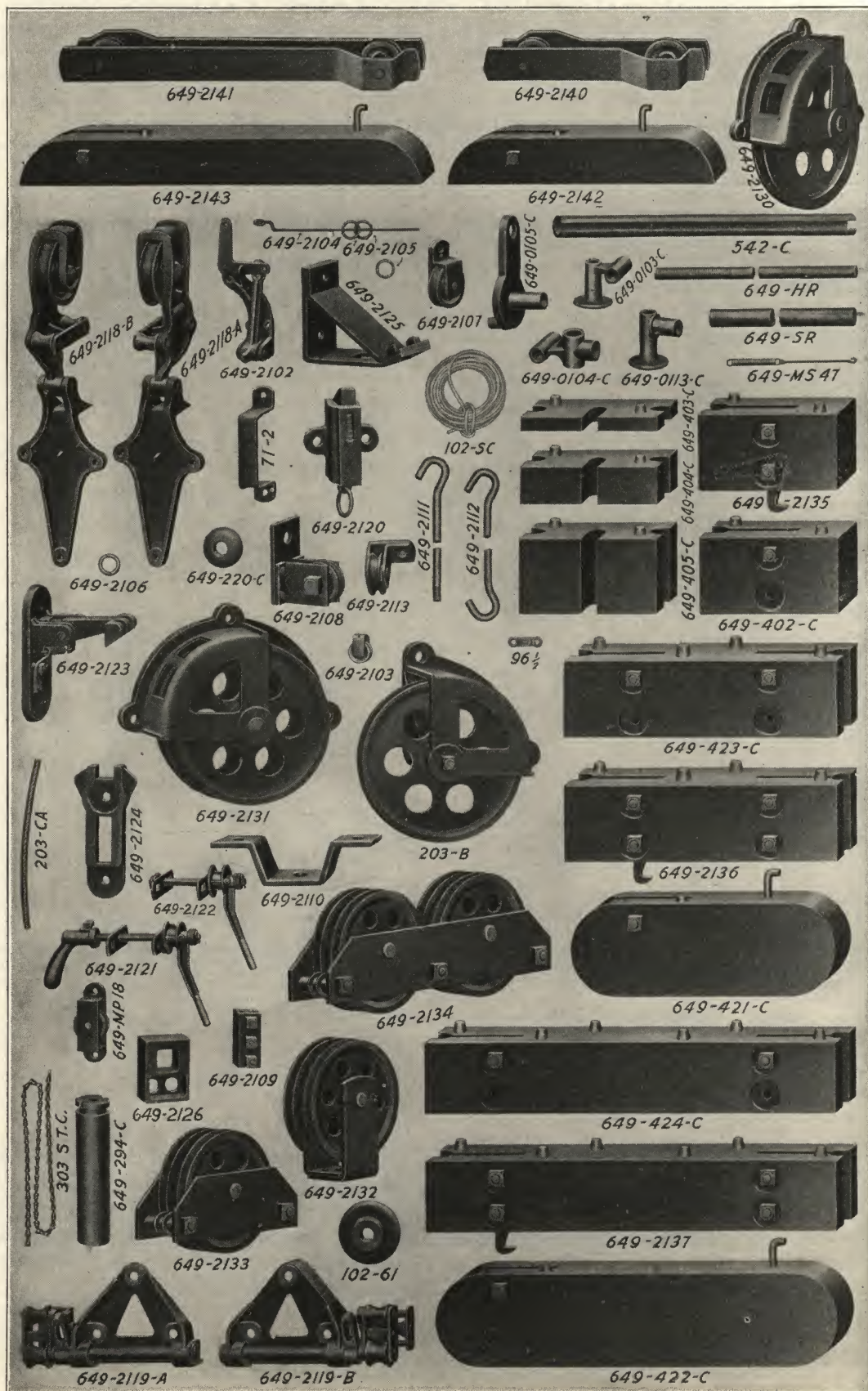
ceiling or beams, giving distance from top of opening to supporting members and show location of joists or beams if hanger rod is to be attached to beams. If to be attached to roof, describe same, stating thickness and material from which it is built. If to be attached to concrete floors above, state thickness of same.

**Note**—See page 261 for different methods of counter-weighting and minimum side wall clearance.

(Over)



### R-W No. 649—Illustration of Parts



**Fig. A-1830 —  
When Ordering  
BE SURE to  
give the Cata-  
log Number of  
the Part De-  
sired.**



# Richards-Wilcox

## R-W No. 649 List Price of Parts

Detail of No. 649 Parts for Horizontal Sliding Fire Door Fixtures, Illustrated on Opposite Page

No.	Description	Weight Lbs.	List Price
71-2	Steel Handle, each	$\frac{3}{4}$	\$ .20
96 $\frac{1}{2}$	Fusible Link, each	$\frac{1}{16}$	.20
102-61	Cast Washer (for wall bolts on fire doors), each	$1\frac{1}{2}$	.18
102-SC	No. 7 Sash Cord, per foot	.....	.07
203-CA	$\frac{3}{8}$ -inch Steel Cable, per foot	.....	.17
203-B	Single Cable Pulley, each	17	3.50
303-St. C	No. 2 Steel Chain, per foot	.....	.12
542-C	Track Steel for Horizontal Track, per foot	$1\frac{1}{2}$	.23
542-C	Track Steel for Vertical Track, per foot	$1\frac{1}{2}$	.23
649-2102	Main Keeper, each	$2\frac{1}{4}$	1.65
649-2103	Ceiling Pulley (Old No. MW-4), each	$\frac{1}{8}$	.30
649-2104	Needle, each	$\frac{1}{16}$	.24
649-2105	Chain Ring, each	$\frac{1}{16}$	.09
649-2106	Weight Trip Ring, each	$\frac{1}{16}$	.12
649-2107	Side Chain Pulley, each	1	.75
649-2108	Cable Bracket, each	2	.90
649-2109	Cable Clamp, each	$\frac{3}{4}$	.90
649-2110	Hanger Rod Bracket, each	$2\frac{1}{2}$	.52
649-2111	Weight Hook for single set of weights, each	1	1.20
649-2112	Weight Hook for double set of weights, each	1	1.20
649-2113	Ceiling Chain Pulley, each	$1\frac{1}{2}$	.75
649-2118A	Top Hanger for 2 $\frac{5}{8}$ -inch Doors (right and left), each	10	4.00
649-2118B	Top Hanger for 1 $\frac{3}{4}$ -inch Doors (right and left), each	$9\frac{1}{2}$	4.00
649-2119A	Bottom Hanger for 2 $\frac{5}{8}$ -inch Doors (right and left), each	8	2.70
649-2119B	Bottom Hanger for 1 $\frac{3}{4}$ -inch Doors (right and left), each	$7\frac{1}{2}$	2.70
649-2120	Door Bolt (for warehouse doors only), each	$3\frac{1}{4}$	2.00
649-2121	Latch Handle (for both sides of door), each	2	1.35
649-2122	Latch Handle (for one side of door), each	$1\frac{1}{2}$	1.20
649-2123	Four Point Latch, less keepers (for fire doors only), each	35	9.00
649-2124	Keeper for Four Point Latch (4 pieces to set, used with 649-2123 only), per set	$2\frac{3}{4}$	.75
649-2125	Angle Keeper for No. 2120 Bolt (to attach to face of wall. Made in four sizes, for 1 $\frac{3}{4}$ -inch, 2-inch, 2 $\frac{1}{4}$ -inch and 2 $\frac{1}{2}$ -inch doors), each	5	1.20
649-2126	Keeper for No. 2120 Bolt (to attach to bottom of lintel), each	$2\frac{1}{4}$	.60
649-2130	Single Cable Pulley (used only with weights mounted as detail C), each	18	3.75
649-2131	Double Cable Pulley, each	24	5.00
649-2132	Pulley for single compounded weight, each	15	3.75
649-2133	Pulley for double compounded weight, each	18	4.50
649-2134	Pulley for triple compounded weight, each	34	10.00
649-2135	Main 50-pound weight with trip, each	50	6.75
649-2136	Main 100-pound weight with trip, each	100	12.00
649-2137	Main 150-pound weight with trip, each	150	18.00
649-2140	Weight holder for double weights, each	9	2.00
649-2141	Weight holder for triple weights, each	13	2.30
649-2142	Drop Off 50-pound weight, each	50	6.75
649-2143	Drop-Off 75-pound weight, each	75	10.50
649-220C	Cast Washer (for wall bolts on warehouse doors), each	$\frac{3}{4}$	.15
649-294C	Trip Weight, each	$8\frac{1}{4}$	1.05
649-402C	Main 50-pound weight, each	50	6.00
649-403C	Auxiliary 10 pound weight, each	10	1.20
649-404C	Auxiliary 25 pound weight, each	25	3.00
649-405C	Auxiliary 50 pound weight, each	50	6.00
649-421C	Drop-off 100 pound weight, each	100	12.75
649-422C	Drop-off 150 pound weight, each	150	19.50
649-423C	Main 100-pound weight, each	100	12.00
649-424C	Main 150 pound weight, each	150	18.00
649-0103C	Center Bracket for Vertical Track, each	1	.27
649-0104C	Center Bracket for Horizontal Track, each	1	.42
649-0105C	End Bracket for Horizontal Track, each	$1\frac{1}{2}$	.36
649-0113C	Top Bracket for Vertical Track, each	1	.75
649-HR	Hanger Rod, $\frac{3}{4}$ -inch Round, per foot	$1\frac{1}{2}$	.27
649-SR	Spreader Rod, $\frac{3}{4}$ -inch Round, per foot	1	.33
649-MP18	Side Pulley (old No. M-11), each	$\frac{3}{4}$	.30
649-MS47	Latch Spring (old No. M-10), each	$\frac{1}{8}$	.21
649-MW15	No. 20 Bright Wire, per pound	.....	.15

Note—Always specify by number.

Discount.....

Take your Fire Door Problem to our nearest Branch Office



## R-W No. 386 Angle Iron Door Frame

For Face of the Wall

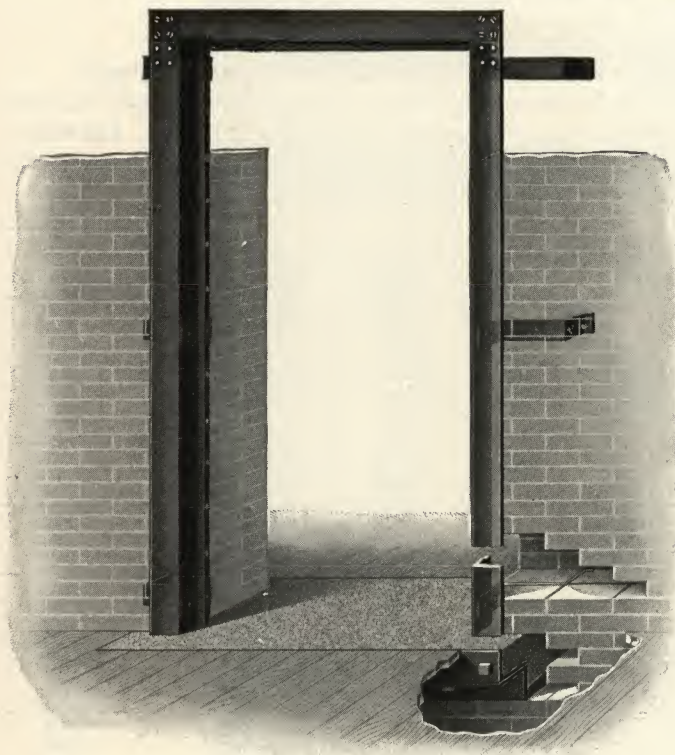


Fig. A-1831—The Z Bar as shown in above concrete sill is not part of this frame, see page 269 for its price

This frame is built according to the standard as designated by the National Board of Fire Underwriters. This type is best adapted for use in old walls or after wall has been erected, but can be more easily applied as the walls are being built.

Furnished with anchors as illustrated when frame is used on one side of wall only (see also Fig. A-1832) or with thru bolts when frames are used on both sides of wall, (see Fig. A-1833). The bottom end of frame extends into the concrete part of the sill 2 inches, except when used with sill shown in figure 2, page 269.

**Note:** For prices and description of sills see page 269.

The following list price includes angle iron frame with wall anchors complete for one side of wall, square top opening. Double the list price when frames are wanted for both sides of wall.

### List Price

Fixtures Are Not Included in List Price or Weight of Frames

SIZE OF DOOR OPENING	For 3-ply Tin Clad or "FyeR-Wall" Doors 3½x3½x¼ inch angle		For 2-ply Tin Clad Doors 3x3x¼ inch angle		NOTE
	List Price	Weight per opening, lbs.	List Price	Weight per opening, lbs.	
3' wide x7' or under in height.....	\$22.50	125	\$19.00	110	When fixtures are ordered complete with frames we drill all holes for attaching same, without extra charge.
4' wide x7' or under in height.....	24.00	131	20.00	115	
5' wide x7' or under in height.....	25.00	137	21.00	120	
6' wide x7' or under in height.....	26.00	143	22.50	125	
7' wide x7' or under in height.....	28.00	149	24.00	130	
8' wide x7' or under in height.....	29.00	154	25.00	135	
For frames higher than 7' add per foot of opening.....	2.20	14	1.90	12	

Discount.....

**Directions for Ordering—First.** Send sketch of actual dimensions of opening in wall on old work already constructed. On new work state size of door required and frame will be built accordingly. **Second**—State whether frame extends into concrete or rests on sill. **Third**—Is frame to be used on one or both sides of wall? **Fourth**—If

for single or pairs of doors? **Fifth**—On which side are hinge pintles to be attached, and what type are to be used? If for single doors also state type of latch keeper to be used. **Sixth**—Thickness of wall. **Seventh**—Thickness of doors.



Fig. A-1832—With door on one side of wall



Fig. A-1833—With doors on both sides of wall



## R-W No. 387 Angle Iron Door Frame Rabbetted Type

This frame is built according to the standard as designated by the National Board of Fire Underwriters. This type is best adapted for building into wall when wall is being erected.

Furnished with anchors as illustrated when frame is used on one side of wall only (see also Fig. A-1835) or with double ties when frames are used on both sides of wall (see Fig. A-1836) The bottom end of frame extends into the concrete part of the sill 2 inches, except when used with sills shown in figure 2 on page 269.

**Note:** For prices and description of sills see page 269.

The following list price includes angle iron frame with wall anchors complete for one side of wall, square top opening. Double the list price when frames are wanted for both sides of wall.

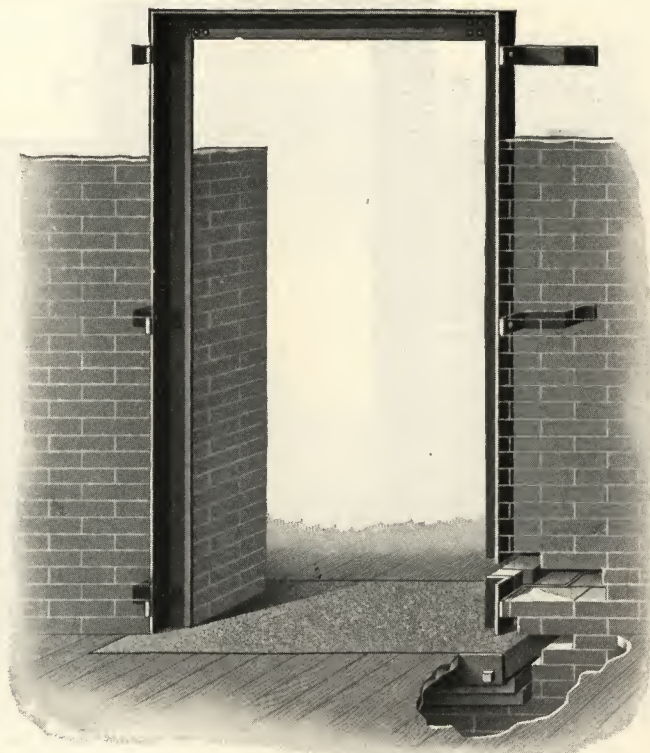


Fig. A-1834—The angle iron as shown above in corbeled concrete sill is not part of the frame, see page 269 for its price.

### List Price

Fixtures Are Not Included in List Price or Weight of Frames

SIZE OF DOOR OPENINGS	For 3-ply Tin Clad or "FyeR-Wall" 3"x3"x1/4" Angle		For 2-ply Tin Clad Doors 2 1/2"x2 1/2"x1/4" Angle		NOTE
	List Price	Weight per opening, lbs.	List Price	Weight per opening, lbs.	
3' wide x 7' or under in height.....	\$19.00	110	\$17.00	95	Fixtures for rabbetted frame are bolted to wall, not to the frame. Special fixture to bolt to frame can be furnished.
4' wide x 7' or under in height.....	20.00	115	18.00	100	
5' wide x 7' or under in height.....	21.00	120	19.00	105	
6' wide x 7' or under in height.....	22.50	125	21.00	110	
7' wide x 7' or under in height.....	24.00	130	22.00	115	
8' wide x 7' or under in height.....	25.00	135	23.00	120	
For frames higher than 7' add per foot of opening.....	1.90	12	1.50	10	

### Discount.....

**Directions for Ordering—First**—Send sketch with actual dimensions of opening in wall (i. e. the space to be occupied by the frame) on old work already constructed. On new work state size of door required and frame will be built accordingly.

**Second**—State whether frame extends into concrete or rests on sill.

**Third**—Is frame to be used on one or both sides of wall.

**Fourth**—If for single or pairs of doors.

**Fifth**—On which side are hinge pintles to be attached and what type are to be used? If for single doors also state type of latch keeper to be used.

**Sixth**—Thickness of wall.

**Seventh**—Thickness of doors.



Fig. A-1835—With door on one side of wall.

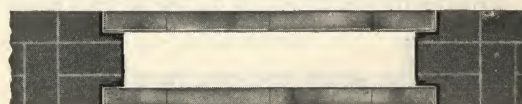


Fig. A-1836—With doors on both sides of wall.



## R-W No. 388 Channel Frame



Fig. A-1837—The Z Bar as shown in above concrete sill is not part of the frame, see page 268 for its price.

Channel frames are especially adapted for use with tile or terra cotta walls and may be built to extend from floor to ceiling when walls are not substantial enough to hold the frames securely in place. The width of the channel is generally 1 inch greater than the thickness of the tile or terra cotta. The doors can be attached to one or both sides of the frame. The bottom end of frame extends into the concrete part of the sill 2 inches, except when used with sill shown in figure 2 on next page.

The following list price includes channel frames with wall anchors as shown in the illustration. When channels extend above the top of the opening to ceiling special prices will be quoted if distance from floor to ceiling is given. Fixtures are not included in list price or weight of frames. Prices are based on standard light section channels.

### List Price

Size of Door Openings	5" Channels		6" Channels		7" Channels		8" Channels		9" Channels	
	List Price	Weight lbs.	List Price	Weight lbs.	List Price	Weight lbs.	List Price	Weight lbs.	List Price	Weight lbs.
3' wide x 7' or under in height.....	\$24.00	160	\$27.50	190	\$32.00	220	\$35.75	245	\$40.50	280
4' wide x 7' or under in height.....	25.00	168	29.00	210	33.50	232	37.50	258	42.50	295
5' wide x 7' or under in height.....	26.25	176	30.00	220	35.00	244	39.00	271	44.50	310
6' wide x 7' or under in height.....	27.50	184	31.25	230	36.50	256	41.00	284	46.50	325
7' wide x 7' or under in height.....	29.00	192	32.50	240	38.00	268	42.50	297	48.50	340
8' wide x 7' or under in height.....	30.00	200	33.75	250	39.50	280	44.50	310	50.50	355
For frames higher than 7' add per foot of opening.....	2.10	15	2.50	18	3.00	22	3.50	25	4.00	30

### Discount.....

### Directions for Ordering

**First**—Send sketch with actual dimensions of opening in wall on old work already constructed. On new work state size of door required and frame will be built accordingly.

**Second**—State whether frame extends into concrete or rests on sill.

**Third**—Will doors be used on one or more sides of wall?

**Fourth**—If for single or pairs of doors?

**Fifth**—On which side are hinge pintles to be attached and what type are to be used? If for single doors also state type of latch keeper to be used.

**Sixth**—Width of channel required.

**Seventh**—Thickness of doors.



Fig. A-1838—With door on one side of wall.



Fig. A-1839—With doors on both sides of wall.



## R-W No. 389 Angle Iron Sills

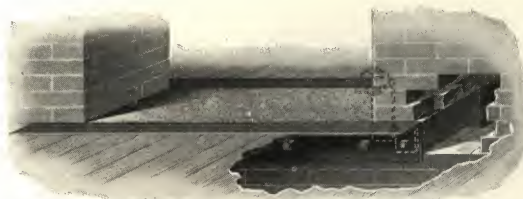


FIG. 1 ANGLES FOR FLUSH SILL

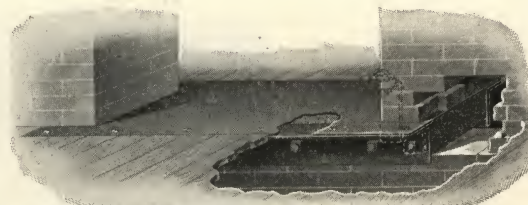


FIG. 2 ANGLES AND STEEL PLATE SILL

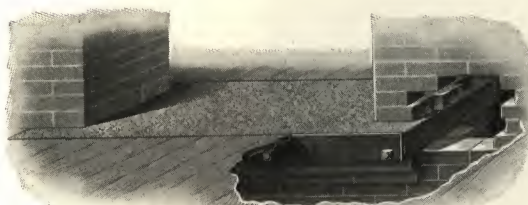


FIG. 3 ANGLES FOR CORBELED SILL

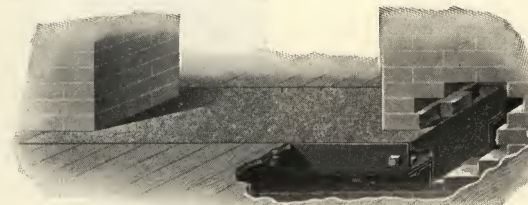


FIG. 4 Z BARS FOR SILLS

All of the sills illustrated are manufactured according to the standard specifications and rules of the National Board of Fire Underwriters.

Sills as shown in Figs. 1 and 3 are a combination of angle irons and concrete. This makes a very substantial threshold, and when the concrete is worn it can be replaced at a very small expense.

Sills as shown in Fig. 2 are the same as Fig. 1 with the addition of a steel plate on top of the concrete. Plate is

always assembled to angle irons on job unless otherwise specified.

Sill as shown in Fig. 4 is a combination of Z bars and concrete. The same lasting qualities as mentioned for sills as shown in Figs. 1 and 3.

State thickness of walls so we can send bolts of the proper length or plate of the proper width, as same are included in the price of the sills.

### List Price

These prices cover sills on both sides of wall. If wanted for one side of wall only, deduct 40% from list prices.

Size of Opening Feet	Fig. 1 3½x5x⅜-inch angle for flush sill with bolts	*Fig. 2 3½x5x⅜-inch angle and ¼-inch steel plate for sill with bolts	Fig. 3 3½x6x⅜-inch angle for corbeled sill with bolts	Fig. 4 4x4x⅜-inch Z bars for sills with bolts
3	\$10.00	\$18.00	\$11.00	\$18.00
4	12.50	22.50	14.00	22.50
5	15.00	27.00	16.00	27.00
6	17.50	31.00	19.00	31.00
7	20.00	36.00	21.00	36.00
8	22.50	40.00	24.00	40.00

\*Plates included in List Price up to 13-inch wall. Over 13 inches prices will be quoted on application.

Discount.....

### Directions for Ordering

**First**—State exact width of opening (and angle iron or Z bars will be furnished long enough to extend 6 inches into the wall on either side). See dotted lines in the two uppermost illustrations.

**Second**—State thickness of wall.

**Third**—On Figure 2 sills state if plate is desired the full length of

the angle irons (as required by the rules of the National Board of Underwriters) or the width of the opening. Also state thickness of wall, so plate of correct width can be furnished.

**Fourth**—State if standard guide rollers for sliding doors are to be used with sills shown in Figs. 1 and 2.



## R-W Monarch Two Link Flat Track Fire Door Fixtures

For Single Sliding Doors, Incline Track

R-W No. 102-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors.

R-W No. 102-3 For Three-ply (2- $\frac{5}{8}$  inch) Tin Clad Doors.

R-W No. 1102 For "FyeR-Wall" Sheet Metal Doors.

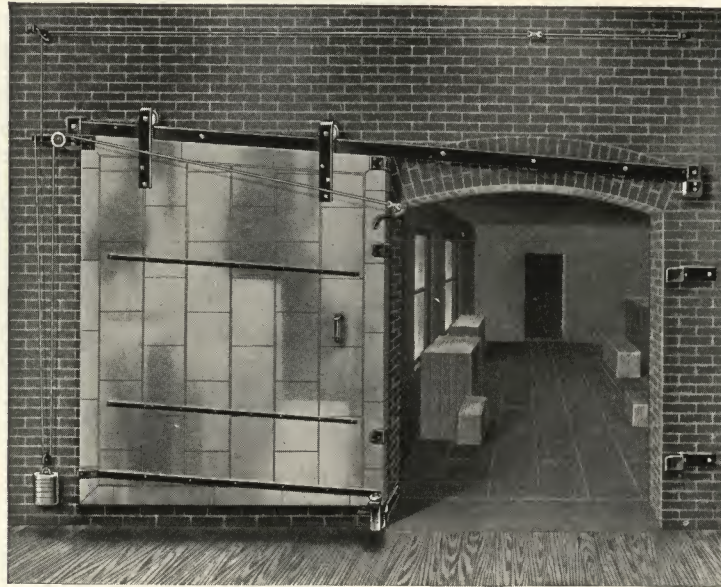


Fig. A-1840—No. 102 Fire Door Fixtures Applied to Left Hand Tin Clad Fire Door

The above hardware is included in list of Fire Door Hardware and inspected by Underwriters' Laboratories, (Inc.) under the direction of the National Board of Fire Underwriters.

We recommend these fixtures when head-room exceeds 3 feet.

This arrangement of automatic device provides two fusible links—one constantly in opening and exposed from

both sides and one link near ceiling. If either link fuses, door is released and closes by gravity. If doors are used on both sides of wall, the cord can be made to pass through wall near ceiling, at point where it is shown attached to the wall, in illustration, and same arrangement continued on other side, thus providing four links. The fusing of and one releases both doors.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings, as doors must lap four inches on each side and at top.

**Second**—Width and height of opening, (mention width first).

**Third**—Thickness of doors, if two-ply tin clad (1 $\frac{3}{4}$  inches), three-ply tin clad (2 $\frac{5}{8}$  inches) or "FyeR-Wall" sheet metal doors.

**Fourth**—Thickness of wall, when wall bolts are required, or when doors are used on both sides of wall, in which case special U wall plates are required for guide rollers, when walls are less than 12" thick.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest obstructions overhead. Fixtures require 13 $\frac{1}{2}$  inches on side wall toward

which door closes and width of opening plus 21 inches on opposite side. Square top openings require 14" of head-room for non-adjustable hangers at edge of openings toward which the door slides in closing, plus  $\frac{3}{4}$ " for each foot of track.

Arched top openings require 14" head-room above the top of arch, plus  $\frac{3}{4}$ " for each foot the track extends beyond the center of opening. Add three inches to the above clearances for adjustable hangers.

**Sixth**—If opening is square or arched top.

**Seventh**—Are fixtures for a right or left hand door?

Detail of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad, and R-W "FyeR-Wall" Sheet Metal Doors. Approved hardware suitable for Saino and Merchant & Evans Doors furnished when required.



## R-W Monarch Two Link Flat Track Fire Door Fixtures (Cont.)



Fig. A-1841—No. 1102 Fire Door Fixtures Applied to  
"FyeR-Wall" Sheet Metal Left Hand Door

### List Price for Nos. 102-2, 102-3, and 1102 Fire Door Fixtures

List price includes non-adjustable hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and screws for attaching parts to door, heavy cast washers for wall bolts and necessary counter balance weights. Weights are furnished

regularly for openings 8 feet high. If opening is higher, additional weights are required.

**Wall bolts are not included, but will be furnished on request at a moderate price if thickness of wall is given.**

For table giving quantity and lengths of wall bolts see page 296.

Width of Opening with 1 pr. Hangers	List Price	Weight per Set, Lbs.	*Width of Opening with 1½ pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$22.80	170	6½ feet.....	\$30.00	250
3½ feet.....	23.60	178	7 feet.....	30.95	258
4 feet.....	24.40	187	7½ feet.....	31.90	266
4½ feet.....	25.20	195	8 feet.....	32.85	282
5 feet.....	26.00	205	8½ feet.....	33.80	288
5½ feet.....	26.80	215	9 feet.....	34.75	297
6 feet.....	27.60	225	9½ feet.....	35.70	305
			10 feet.....	36.65	315

No. 102-2, 102-3 or No. 1102, Automatics only, weight 44 lbs. Per set.....	\$ 6.00
No. 102-2, 102-3 or 1102 Fixtures only, less Hangers, Track and Brackets; Binder, Chafe and Guide Roll Strips, weight 94 lbs. Per set.....	14.50
No. 102-84 Track only, with Brackets, weight 4½ lbs. Per foot.....	.48
Length of Track equals twice width of opening plus 21".	
No. 102-2 Hangers only (page 298), weight 30 lbs. Per pair.....	5.00
No. 102-3 Hangers only (page 298), weight 30 lbs. Per pair.....	5.00
No. 1102 Hangers with back plates, (page 298), weight 35 lbs. Per pair.....	5.00
No. 202 Adjustable Hangers only. (page 298), weight 36 lbs. Per pair.....	8.50

\*For openings (not doors) over 6' wide, Underwriters require three hangers.

**Note:** State whether fixtures for left or right hand door are desired.

**Discount**.....



## Packing List for R-W No. 102-2, 102-3 and No.1102 Fire Door Fixtures Standard Style

102-2	102-3	1102	DESCRIPTION	List Price
1	..	..	No. 70-1 Flush Pull, each	\$.27
..	1	..	No. 70-2 Flush Pull, each	.33
1	..	..	No. 71-1 Bow Handle, each	.14
..	1	..	No. 71-2 Bow Handle, each	.20
..	..	1	No. 71-3 Bow Handle, each	.25
..	..	1	No. 71-4 Bow Handle, each	.35
1	1	1	No. 96 Fusible Link. One additional link is attached to No. 102-97 Link Bracket, each	.30
*	*	*	No. 102-SC Sash Cord with wire link attached. (As required), per foot	.07
1 Pr.	..	..	No. 102-2 Hangers. (Openings over 6' wide require 1½ pair), per pair	5.00
..	1 Pr.	..	No. 102-3 Hangers. (Openings over 6' wide require 1½ pair), per pair	5.00
1	1	1	No. 102-14 Pulley, each	.30
1	1	1	No. 102-41 Rope Angle, each	.18
1	1	1	No. 102-41 Rope Angle with No. 102-14 Pulley Attached, each	.50
*	*	*	No. 102-61 Cast Washers. (See table below). Not required when doors are used on both sides of wall, each	.18
8	8	..	No. 102-72 Bumper Shoes, each	.12
1	..	..	No. 102-80-2 Guide Roller. (For Angle Iron Sills Only), each	2.40
..	1	1	No. 102-80-3 Guide Roller. (For angle Iron Sills Only), each	2.40
2	2	..	No. 102-82 Binder Strip. Length equals width of opening less 4", each	.50
1 Run	1 Run	1 Run	No. 102-84 Track. Length equals twice width of opening. Plus 21", each	.48
*	*	*	No. 102-85 Brackets. (See table below), each	.25
1	1	1	No. 102-86 Rope Pulley and Back Bumper with Trigger, complete	2.00
1	1	1	No. 102-86½ Pulley. (Required only when doors are used on both sides of wall), each	1.20
1	1	1	No. 102-87 Front Bumper, each	1.20
1	1	1	No. 102-88 Guide Roll Strip. Length equals width of opening plus 3". (Plus 6" for 1102), each	1.00
2	2	..	No. 102-89 Chafe Strips, Length equals width of opening less 4", each	.50
1	1	1	No. 102-91 Weight Holder, each	.18
2	..	..	No. 102-95-2 Binders, each	1.00
..	2	2	No. 102-95-3 Binders, each	1.00
1	1	1	No. 102-97 Link Bracket with No. 96 Fusible Link Attached, complete	.66
1	1	1	No. 102-98 Wedge each	.12
*	*	*	No. 102-99 No. 1 Lightweights. (According to size of opening), each	.30
1	..	..	No. 102-99 No. 2 Heavyweights. (According to size of opening), each	.90
..	1	1	†No. 156-2 Guide Roller. (Omit for Angle Iron Sills), each	2.40
..	..	1 Pr.	*No. 156-3 Guide Roller. (Omit for Angle Iron Sills), each	2.40
..	..	2	No. 1102 Hangers, with backplates. (Openings over 6' wide require 1½ pair), per pair	5.00
..	..	1	No. 1102-90 Track Binders. (Openings over 6' wide require 3), each	.36
..	..	1	No. 1102-93 Rear Binder Pocket, each	1.20
1	1	1	No. 1102-94 Rear Binder Hook, each	.96
1	1	1	Package Screws and Bolts	

### Discount.....

†No. 56-2 Boston Guide Roller may be substituted for item listed above if desired.

\*No. 56-3 Boston Guide Roller may be substituted for item listed above if desired.

**Table of No. 102-85 Brackets and No. 102-61 Washers for Above Fixtures.**

Width of Opening	NUMBER OF BRACKETS	*Number of Washers
2' 0" to 4' 8"	5	10
4' 9" to 5' 2"	6	11
5' 3" to 7' 8"	7	12
7' 9" to 8' 8"	9	14
8' 9" to 11' 8"	10	15
11' 9" to 13' 0"	11	16
	Fixtures Only Require	5

\*No. 1102 Fixtures require one more washer than shown above.

## Wall Bolt List for Nos. 102-2, 102-3 and No. 1102 Fire Door Fixtures

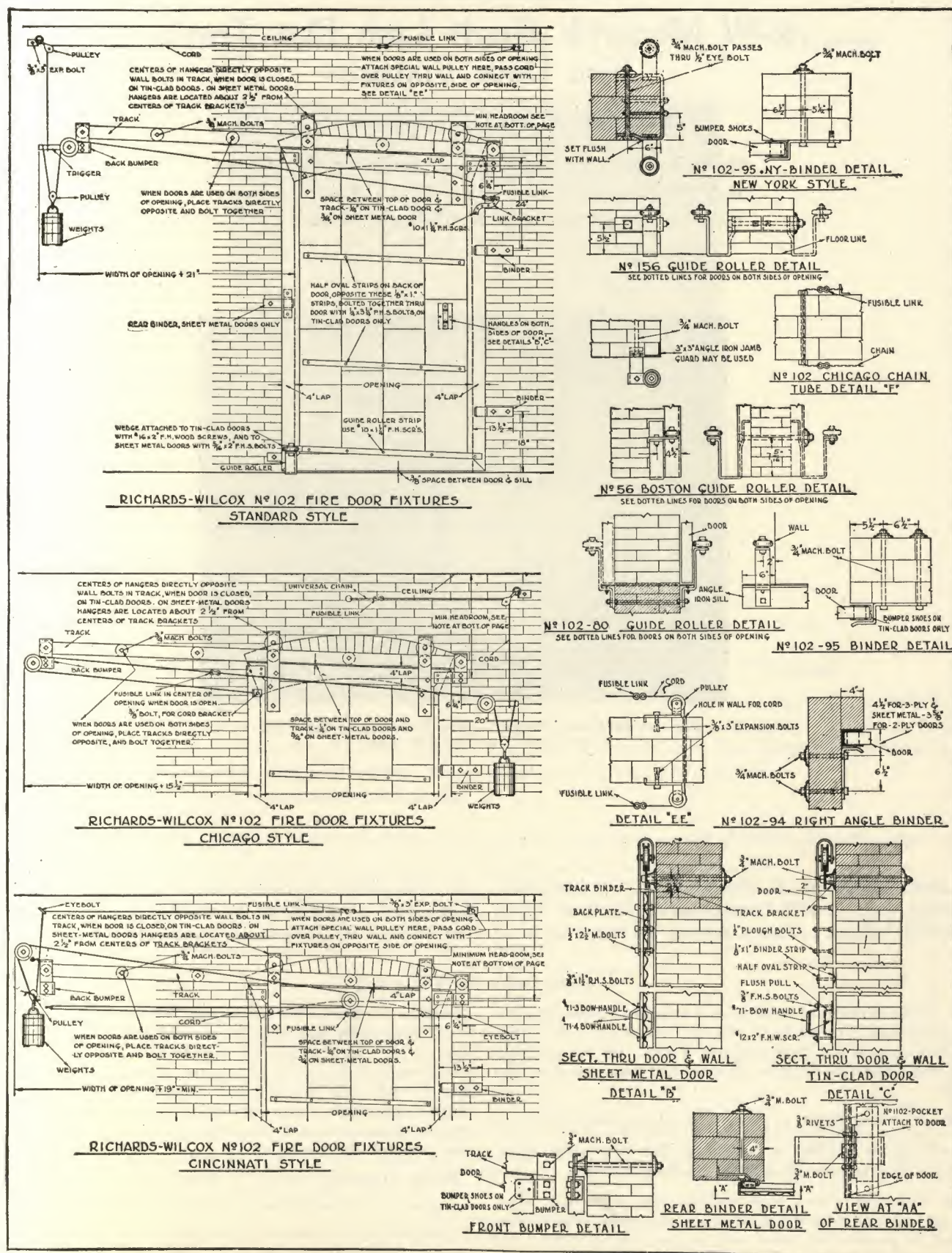
Wall Bolts are not furnished with sets of fixtures regularly but will be furnished at prevailing market prices when thickness of wall is given and customer requests them. The table below gives the number and size of bolts required for various sized openings. Note that the number of bolts is the same for hardware installed on one or both sides of wall.

**NUMBER OF ¾" BOLTS REQUIRED FOR VARYING WIDTHS OF DOORWAY OPENINGS**

Fixtures bolts are used to fasten.....	Opening 2' to 4' 8" wide	Opening 4' 9" to 5' 2"	Opening 5' 3" to 7' 8"	Opening 7' 9" to 8' 8"	Opening 8' 9" to 11' 8"	Opening 11' 9" to 13' 0"	LENGTH OF BOLTS REQUIRED FOR SETS INSTALLED	
							On One Side of Wall	On Both Sides of Wall
							Wall thickness plus 2"	Wall thickness plus 2"
Binders.....	4	4	4	4	4	4	Wall thickness plus 1"	Wall thickness minus ¾"
Guide Rollers.....	1	1	1	1	1	1	Wall thickness plus 4"	Wall thickness plus 6"
End Track Brackets.....	2	2	2	2	2	2	Wall thickness plus 4"	Wall thickness plus 5"
Center Track Brackets.....	3	4	5	7	8	9	Wall thickness plus 1"	Wall thickness minus ¾"
Rear Binder Hook (in No. 1102 set only).....	1	1	1	1	1	1		
Total Bolts in No. 102-2 and No. 102-3 sets....	10	11	12	14	15	16		
Total Bolts in No. 1102 sets.....	11	12	13	15	16	17		

\*Wall Bolt not required when No. 102-80 Guide Rollers are used.





**Fig. A-1842**—Square top openings require 14" of head-room for Non-Adjustable hangers at edge of opening toward which the door slides in closing, plus  $\frac{3}{4}$ " for each foot of track. Arched top openings require 14" of head-room above the top of arch, plus  $\frac{3}{4}$ " for each foot that track extends beyond the center of opening. Add three inches to the above clearances for adjustable hangers.



## R-W Monarch Single Link Flat Track Fire Door Fixtures

For Single Sliding Doors, Incline Track

R-W No. 201-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors

R-W No. 201-3 For Three-ply (2 $\frac{5}{8}$  inch) Tin Clad Doors

R-W No. 1201 For "FyeR-Wall" Sheet Metal Doors.

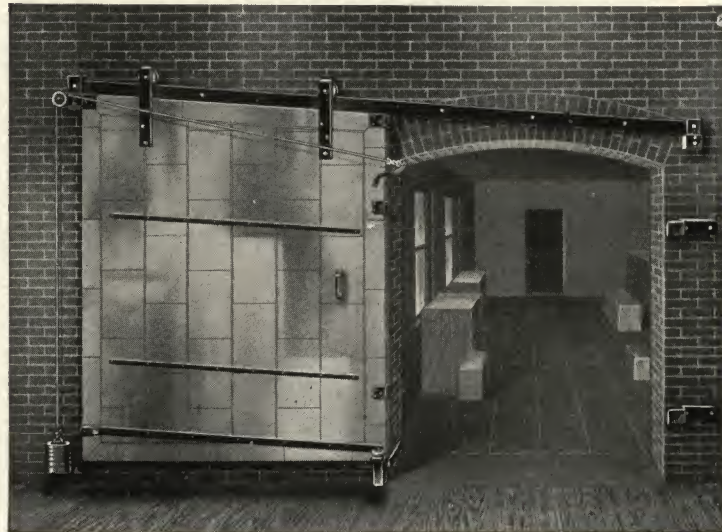


Fig. A-1843—No. 201 Fire Door Fixtures Applied to a  
Left Hand Tin Clad Fire Door

The above hardware is inspected by Underwriters' Laboratories, (Inc.), under direction of the National Board of Fire Underwriters. This fixture is the same style as

No. 102 shown on pages 270, 271, except that the overhead cord arrangement is omitted. This type has but one fusible link which is exposed in the opening.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings, as doors must lap four inches on each side and at top.

**Second**—Width and height of opening, (mention width first).

**Third**—Thickness of doors, if two-ply tin clad (1 $\frac{3}{4}$  inches), three ply tin clad (2 $\frac{5}{8}$  inches) or "FyeR-Wall" sheet metal doors.

**Fourth**—Thickness of wall, when wall bolts are required, or when doors are used on both sides of wall, in which case special U wall plates are required for guide rollers, when walls are less than 12" thick.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest ob-

structions overhead. Fixtures require 13 $\frac{1}{2}$  inches on side wall toward which door closes and width of opening plus 19 inches on opposite side. Square top openings require 14" of head-room for non-adjustable hangers at edge of opening toward which the door slides in closing, plus  $\frac{3}{4}$ " for each foot of track. Arched top openings require 14" of head room above the top of arch, plus  $\frac{3}{4}$ " for each foot that track extends beyond the center of opening. Add three inches to the above clearances for adjustable hangers.

**Sixth**—If opening is square or arched top.

**Seventh**—Are fixtures for a right or left hand door?

Detail of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and Labeled Tin-clad and R-W "FyeR-Wall" sheet metal doors. Approved hardware suitable for Saino and Merchant and Evans Doors furnished when required.



## R-W Single Link Flat Track Fire Door Fixtures



Fig. A-1844—No. 1201 Fire Door Fixtures Applied to "FyeR-Wall" Sheet Metal Left Hand Door

### List Price For Nos. 201-2, 201-3 and 1201 Fire Door Fixtures

List price includes non-adjustable hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and screws for attach-

ing parts to door, heavy cast washers for wall bolts and necessary counter-balance weights. Weights are furnished regularly for opening 8 feet high. If opening is higher additional weights are required.

Wall bolts are not included, but will be furnished on request, at moderate price if thickness of wall is given.

For table giving quantity and lengths of wall bolts see page 296

Width of Opening with 1 pr. Hangers	List Price	Weight per Set, Lbs.	*Width of Opening with 1½ pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$21.00	165	6½ feet.....	\$29.00	232
3½ feet.....	21.50	170	7 feet.....	29.50	238
4 feet.....	22.00	176	7½ feet.....	30.00	247
4½ feet.....	22.50	183	8 feet.....	30.50	258
5 feet.....	23.00	191	8½ feet.....	31.00	268
5½ feet.....	23.50	202	9 feet.....	31.50	276
6 feet.....	24.00	208	9½ feet.....	32.00	282
			10 feet.....	32.50	292

No. 201-2, 201-3 or 1201 Automatics only, weight 25 lbs. Per set.....	\$ 4.20
No. 201-2, 201-3 or No. 1201 Fixtures only, less hangers, track and brackets; binder, chafe and guide roll strips, weight 84 lbs. Per set....	13.00
No. 102-84 Track only, with brackets, weight 4½ lbs. Per foot.....	.48
(Length of track equals twice width of opening, plus 21").	
No. 102-2 Hangers only, used with No. 201-2 Hardware, (page 298), weight 30 pounds. Per pair.....	5.00
No. 102-3 Hangers only, used with 201-3 Hardware, (page 298), weight 30 lbs. Per pair.....	5.00
No. 1102 Hangers with Back Plates, used with No. 1201 Hardware, (page 298), weight 35 lbs. Per pair.....	5.00
No. 202 Adjustable Hangers only, (page 298), weight 36 lbs. Per pair.....	8.50

\*For openings (not doors) over 6' wide, Underwriters require three hangers.

Note—State whether fixtures for right or left hand door are desired.

Discount.....



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*R-W Fire Door Equipment is made under Strict and Precise Supervision*



## List Price

### Detail of Parts for Sliding Fire Door Fixtures Illustrated on Opposite Page

No.	DESCRIPTION	List Price
56-2	Boston Guide Roller for 2-ply Tin Clad Doors, each	\$2.40
56-3	Boston Guide Roller for 3-ply Tin Clad Doors and "FyeR-Wall" Sheet Metal Doors, each	2.40
70-1	Flush Door Pull for 2-ply Tin Clad Doors, each	.27
70-2	Flush Door Pull for 3-ply Tin Clad Doors, each	.33
71-1	Bow Handle for 2-ply Tin Clad Doors, each	.14
71-2	Bow Handle for 3-ply Tin Clad Doors, each	.20
71-3	Bow Handle for Sheet Metal Doors, each	.25
71-4	Bow Handle for Sheet Metal Doors, each	.35
96	Fusible Link, each	.30
102-14	Cord Pulley, each	.30
102-15	Rope Pulley, (used with Chicago style only), each	.50
102-14	Cord Pulley assembled with No. 102-41 Rope Angle, each	.50
102-41	Rope Angle, each	.18
102-61	Cast Washers for Wall Bolts, each	.18
102-72	Bumper Shoes, each	.12
102-78	Eye Bolt (for Cincinnati style only), each	.50
102-80-2	Guide Roller for Angle Iron Frames only, for 2-ply Tin Clad Doors, each	2.40
102-80-3	Guide Roller, for Angle Iron Frames only, for 3-ply Tin Clad Doors, each	2.40
102-81	Door Pulley, (used with Cincinnati style only) each	1.85
102-82	Binder Strips, each	.50
102-85	Track Brackets, each	.25
102-86	Rope Pulley and Back Bumper with Trigger, each	2.00
102-86 1/2	Pulley, each	1.20
102-87	Front Bumper, each	1.20
102-88	Guide Roller Strip, each	1.00
102-89	Chafe Strip, each	.50
102-90	Chain Tube, (used with Chicago style only), each	.75
102-91	Weight Holders, each	.18
102-92	Pulley and Trigger, (used with Chicago style only), each	2.00
102-93	Pulley, (used with Cincinnati style only), each	1.20
102-94	Right Angle Binder, each	.60
102-95-2	Binders for 2-ply Tin Clad Doors, each	1.00
102-95-3	Binders for 3-ply Tin Clad Doors, and "FyeR-Wall" Sheet Metal Doors, each	1.00
102-79	Link Bracket, each	.30
102-98	Wedge, each	.12
102-99-1	Lightweight, 3 lbs., each	.30
102-99-2	Heavyweight, 9 lbs., each	.90
102-SC	Sash Cord, per foot	.07
156-U	U-Plate for Guide Rollers, (used with Doors on both sides of wall for walls under 12' thick), each	1.80
156-2	Guide Roller for 2-ply Tin Clad Doors, each	2.40
156-3	Guide Roller for 3-ply Tin Clad Doors, and "FyeR-Wall" Sheet Metal Doors, each	2.40
171-2	Center Floor Stop for 2-ply Tin Clad Doors, each	.80
171-3	Center Floor Stop for 3-ply Tin Clad Doors, each	.90
201-86	Rope Pulley and Back Bumper, complete	2.00
201-92	Pulley, (used with Chicago style only), each	1.50
203-D	Chain Bracket, (used with Chicago style only), each	.30
204-61	Double Washers, each	.24
204-94	Center Bumpers, right or left, each	.36
204-95-2	Center Binder for 2-ply Tin Clad Doors, each	1.00
204-95-3	Center Binder for 3-ply Tin Clad Doors and "FyeR-Wall" Sheet Metal Doors, each	1.00
206-020	Weight, (3 small) with weight holder, each	.24
303-79	Wall Pulley, (used with Chicago style only), each	3.25
303-86	Back Bumper, (Chicago style only), each	1.80
303-STC	Steel Chain, (for closing weights), per foot	.12
304-68	Back Bumper, (Chicago style only), each	2.70
304-85-2	End Track Bracket for 2-ply Tin Clad Doors, each	.24
304-85-3	End Track Bracket for 3-ply Tin Clad Doors and "FyeR-Wall" Sheet Metal Doors, each	.36
304-86	Rope Pulley and Back Bumper, complete	1.80
304-87	Front Bumper, each	1.20
304-DB-2	Drop Brackets for 2-ply Tin Clad Doors, each	1.50
304-DB-3	Drop Brackets for 3-ply Tin Clad Doors and "FyeR-Wall" Sheet Metal Doors, each	1.50
304-SB	Pulley, each	.84
542-CB-2	Center Brackets for 2-ply Tin Clad Doors, each	.19
542-CB-3	Center Brackets for 3-ply Tin Clad Doors and "FyeR-Wall" Sheet Metal Doors, each	.19
542-CJ-2	Joint Brackets for 2-ply Tin Clad Doors, each	.36
542-CJ-3	Joint Brackets for 3-ply Tin Clad Doors and "FyeR-Wall" Sheet Metal Doors, each	.36
604-95-2	Combination Center Bracket and Binder for 2-ply Tin Clad Doors, each	1.20
604-95-3	Combination Center Bracket and Binder for 3-ply Tin Clad Doors, and "FyeR-Wall" Sheet Metal Doors, each	1.45
606-EC	Extra Weight, (used with Chicago style only), each	.24
645-86-2	Combination End Bracket and Bumper with Trigger, right or left, for 2-ply Tin Clad Doors, each	2.00
645-86-3	Combination End Bracket and Bumper with Trigger, right or left, for 3-ply Tin Clad Doors and "FyeR-Wall" Sheet Metal Doors, each	2.00
645-87-2	Combination End Bracket and Bumper, right or left, for 2-ply Tin Clad Doors, each	1.30
645-87-3	Combination End Bracket and Bumper, right or left, for 3-ply Tin Clad Doors, and "FyeR-Wall" Sheet Metal Doors, each	1.30
646-86-2	Combination End Bracket and Bumper, right or left, for 2-ply Tin Clad Doors, each	2.00
646-86-3	Combination End Bracket and Bumper, right or left, for 3-ply Tin Clad Doors, and "FyeR-Wall" Sheet Metal Doors, each	2.00
706-5	Heavyweight (used with Chicago style only) each	.72
1102-90	Track Binder (used with "FyeR-Wall" Sheet Metal Doors only) each	.36
1102-93	Rear Binder Pocket (used with "FyeR-Wall" Sheet Metal Doors only) each	1.20
1102-94	Rear Binder Hook (used with "FyeR-Wall" Sheet Metal Doors only) each	.96

Note: State whether fixtures are desired for a right or left hand door.

Discount.....



## R-W Two Link Round Track Fire Door Fixtures

For Single Sliding Doors, Incline Track.

R-W No. 645-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors

R-W No. 645-3 For Three-ply (2- $\frac{5}{8}$  inch) Tin Clad Doors

R-W No. 1645 For "FyeR-Wall" Sheet Metal Doors.

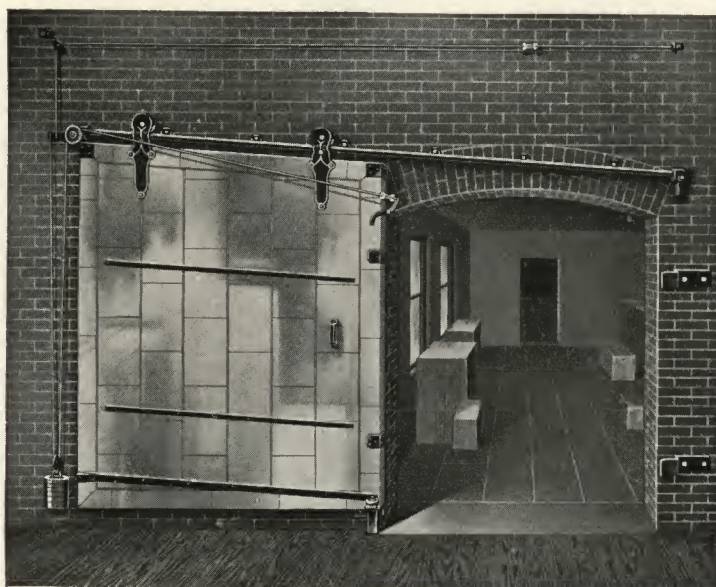


Fig. A-1846—No. 645 Fire Door Fixtures Applied to Left Hand Tin Clad Fire Door.

The above hardware is Inspected by Underwriters' Laboratories, (Inc.), under direction of the National Board of Fire Underwriters.

We recommend these fixtures where Headroom exceeds three feet. This arrangement of automatic device provides two fusible links—one constantly in opening and exposed

from both sides, and one link near ceiling. If either link fuses, door is released and closes by gravity. If doors are used on both sides of wall, the cord can be made to pass through wall, near ceiling, at points where it is shown attached to the wall in illustration, and same arrangement continued on other side, thus providing four links. The fusing of any one releases both doors.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings, as doors must lap four inches on each side and at top.

**Second**—Width and height of opening, (mention width first).

**Third**—Thickness of doors, if two-ply tin clad (1 $\frac{3}{4}$  inches), three-ply tin clad (2 $\frac{5}{8}$  inches) or "FyeR-Wall" sheet metal doors.

**Fourth**—Thickness of wall, when wall bolts are required, or when doors are used on both sides of wall, in which case special U wall plates are required for guide rollers, when walls are less than 12 inches thick.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest ob-

structions overhead. Fixtures require 13 $\frac{1}{2}$  inches on side wall toward which door closes and width of opening plus 17 inches on opposite side. Square top openings require 12" of head-room for non-adjustable hangers at edge of openings toward which the door slides in closing, plus  $\frac{3}{4}$ " for each foot of track.

Arched top openings require 12" head-room above the top of arch, plus  $\frac{3}{4}$ " for each foot the track extends beyond the center of opening. Add 2" for adjustable hangers.

**Sixth**—If opening is square or arched top

**Seventh**—Are fixtures for a right or left hand door?

Detail of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad, and R-W "FyeR-Wall" sheet metal doors. Hardware suitable for Saino and Merchants & Evans doors furnished when required.



## R-W Two Link Round Track Fire Door Fixtures



Fig. A-1847—No. 1645 Fire Door Fixtures Applied to "FyeR-Wall" Sheet Metal Left Hand Door.

### List Price for Nos. 645-2, 645-3 and 1645 Fire Door Fixtures

List price includes non-adjustable hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and screws for attach-

ing parts to door, heavy cast washers for wall bolts, and necessary counter balance weights. Weights are furnished regularly for openings 8' high. If opening is higher, additional weights are required.

Wall bolts are not included, but will be furnished on request at moderate price if thickness of wall is given

For table giving quantity and lengths of wall bolts see page 296.

Width of Opening with 1 pr. Hangers	List Price	Weight per Set, Lbs.	*Width of Opening with 1½ pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$22.80	147	6½ feet.....	\$30.50	203
3½ feet.....	23.45	154	7 feet.....	31.15	210
4 feet.....	24.10	160	7½ feet.....	31.80	217
4½ feet.....	24.75	167	8 feet.....	32.45	223
5 feet.....	25.40	175	8½ feet.....	33.10	229
5½ feet.....	26.05	181	9 feet.....	33.75	236
6 feet.....	26.70	185	9½ feet.....	34.40	242
			10 feet.....	35.05	250

No. 645-2, 645-3 or No. 1645 Automatics only, weight 45 lbs. Per set.....	\$ 6.00
No. 645-2, 645-3 or No. 1645 Fixtures only, less Hangers, Track and Brackets; Binder, Chafe and Guide Roll Strips, weight 100 lbs. Per set.....	14.50
No. 542-C Track only, with brackets, for two-ply tin clad doors, weight 2¼ lbs. Per foot.....	.40
No. 542-C Track only, with brackets, for three-ply tin clad or "FyeR-Wall" sheet metal doors, weight 2¼ lbs. Per foot.....	.40
(Length of track equals twice width of opening plus 15½").	
No. 542-C Hangers with Back Plates used with No. 645-2 Hardware, (page 298), weight 25½ lbs. Per pair.....	5.10
No. 542-C Hangers only, used with No. 645-3 Hardware, (page 298), weight 22 lbs. Per pair.....	5.10
No. 742 Hangers with back plates, used with No. 1645 Hardware, (page 298) weight 25½ lbs. Per pair.....	5.10
No. 642-5 Adjustable Hangers only, (page 298), weight 32 lbs. Per pair.....	10.00

\*For openings, (not doors), over 6 feet wide, Underwriters require three hangers.

Note—State whether fixtures are desired for a right or left hand door.

Discount.....



## R-W Single Link Round Track Fire Door Fixtures

For Single Sliding Doors Incline Track

R-W No. 646-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors.

R-W No. 646-3 For Three-ply (2- $\frac{5}{8}$  inch) Tin Clad Doors.

R-W No. 1646 For "FyeR-Wall" Sheet Metal Doors.

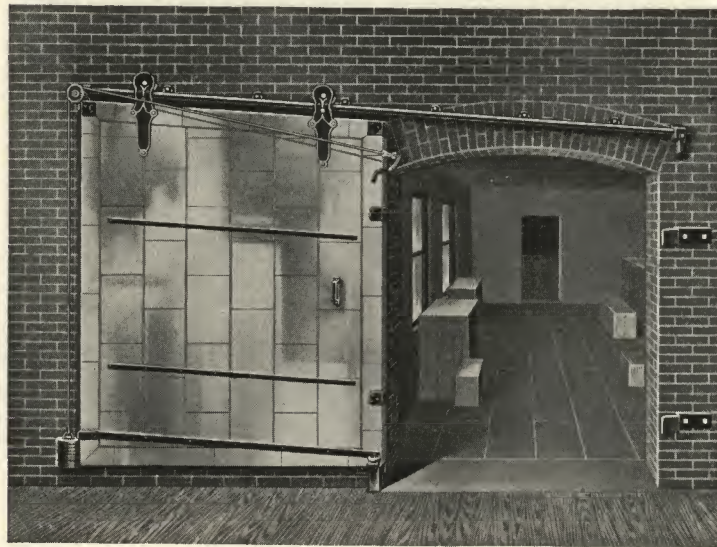


Fig. A-1848—No. 646 Fire Door Fixtures Applied to a Left Hand Tin Clad Fire Door.

This hardware is inspected by Underwriters' Laboratories, (Inc.), under the direction of the National Board of Fire Underwriters.

This fixture is the same style as No. 645 shown on pages 278, 279 except that the overhead cord arrangement is omitted. This type has but one fusible link which is exposed in the opening.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings, as doors must lap four inches on each side and at top.

**Second**—Width and height of opening, (mention width first).

**Third**—Thickness of doors, if two-ply tin clad (1 $\frac{3}{4}$  inches), three-ply tin clad (2 $\frac{5}{8}$  inches), or "FyeR-Wall" sheet metal doors.

**Fourth**—Thickness of wall, when wall bolts are required, or when doors are used on both sides of wall, in which case special U Wall plates are required for guide rollers, when walls are less than 12" thick.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest ob-

structions overhead. Fixture requires 13 $\frac{1}{2}$  inches on side wall toward which door closes and width of opening plus 15 $\frac{1}{2}$  inches on opposite side.

Square top openings require 12" of head-room for Non-Adjustable hangers, at edge of openings toward which the door slides in closing, plus  $\frac{3}{4}$ " for each foot of track. Arched top openings require 12" headroom above the top of arch, plus  $\frac{3}{4}$ " for each foot the track extends beyond the center of opening. Add 2" for adjustable hangers.

**Sixth**—If opening is square or arched top.

**Seventh**—Are fixtures desired for a right or left hand door?

Details of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad and R-W "FyeR-Wall" sheet metal doors. Approved hardware suitable for Saino and Merchant & Evans doors furnished when required.



## R-W Single Link Round Track Fire Door Fixtures

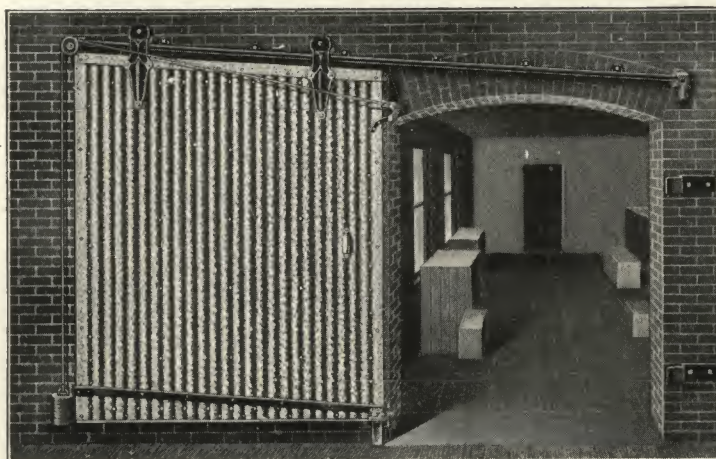


Fig. A-1849—No. 1847 Fire Door Fixtures Applied to  
"FyeR-Wall" Sheet Metal Left Hand Door

### List Price for Nos. 646-2, 646-3 and 1646 Fire Door Fixtures

List price includes Non-Adjustable hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and screws for attach-

ing parts to door, heavy cast washers for wall bolts and necessary counter-balance weights. Weights are furnished regularly for openings 8' high. If opening is higher, additional weights are required.

Wall bolts are not included, but will be furnished on request at moderate price if thickness of wall is given.

For table giving quantity and lengths of wall bolts see page 296.

Width of Opening with 1 pr. Hangers	List Price	Weight per Set, Lbs.	*Width of Opening with 1½ pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$21.25	142	6½ feet.....	\$29.20	185
3½ feet.....	21.90	149	7 feet.....	29.85	191
4 feet.....	22.55	152	7½ feet.....	30.50	197
4½ feet.....	23.20	155	8 feet.....	31.15	201
5 feet.....	23.85	160	8½ feet.....	31.90	204
5½ feet.....	24.50	164	9 feet.....	32.55	210
6 feet.....	25.15	170	9½ feet.....	33.20	214
			10 feet.....	33.85	218

No. 646-2, No. 646-3 or No. 1646 Automatics only, weight 25 lbs. Per set..... \$ 4.20

No. 646-2, No. 646-3 or No. 1646 Fixtures only, less Hangers, Track and Brackets; Binder, Chafe and Guide Roll Strips, weight 81 lbs.

Per Set..... 13.00

†No. 542-C Track only with brackets, for two-ply tin clad doors, weight 2¼ lbs. Per foot..... .40

†No. 542-C Track only with brackets for three-ply tin clad or "FyeR-Wall" sheet metal doors, weight 2¼ lbs. Per foot..... .40

No. 542-C Hangers only with Back Plates used with No. 646-2 Hardware, (page 298), weight 25½ lbs. Per pair..... 5.10

No. 542-C Hangers only used with No. 646-3 Hardware, (page 298), weight 22 lbs. Per pair..... 5.10

No. 742 Hangers with Back Plates used with No. 1646 Hardware, (page 298), weight 25½ lbs. Per pair..... .510

No. 642-5 Adjustable Hangers only, (page 298), Weight 32 lbs. Per pair..... 10.00

\*For openings, (not doors) over 6' wide, Underwriters require three hangers

†Length of track equals twice width of opening plus 15½".

Note—State whether fixtures are desired for a right or left hand door.

Discount.....



## R-W Single Link Flat Track Fire Door Fixtures

For Sliding Doors in Pairs, Incline Track.

R-W No. 204-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors.

R-W No. 204-3 For Three ply (2- $\frac{5}{8}$  inch) Tin Clad Doors.

R-W No. 1204 For "FyeR-Wall" Sheet Metal Doors.



Fig. A-1850—No. 204 Fire Door Fixtures Applied to Tin Clad Doors.

This fixture is the same as No. 201 shown on page 274 except that it applied to pairs of doors.

Designed to meet special conditions, such as not sufficient space on one side to slide a large door, or if an over-

head carrier system track passes through the opening.

This type has one fusible link on each door, and both are exposed in the opening.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings, as doors must lap four inches on each side and at top.

**Second**—Width and height of opening, (mention width first).

**Third**—Thickness of doors, if two ply tin clad (1 $\frac{3}{4}$  inches), three-ply tin clad (2 $\frac{5}{8}$  inches) or "FyeR-Wall" sheet metal doors.

**Fourth**—Thickness of wall, when wall bolts are required, or when doors are used on both sides of wall, in which case special U Wall Plates are required for guide rollers, when walls are less than 12" thick.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest obstructions overhead. Fixture requires  $\frac{1}{2}$  width of opening plus 15 inches wall space on each side of opening. Fourteen inches of head-room is required for non-adjustable hangers at center of opening, plus  $\frac{3}{4}$ " for each foot the track extends beyond center of opening. Add three inches to above clearances for adjustable hangers.

Detail of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad, and R-W "FyeR-Wall" sheet metal doors. Hardware suitable for Saino and Merchant & Evans doors furnished when required.



## R-W Single Link Flat Track Fire Door Fixtures



Fig. A-1851—No. 1204 Fire Door Fixtures Applied to "FyeR-Wall" Sheet Metal Doors.

### List Price for Nos. 204-2, 204-3 and 1204 Fire Door Fixtures

The following list price includes non-adjustable hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and

screws for attaching parts to the door, heavy cast washers for wall bolts and necessary counter balance weights. Weights are furnished regularly for openings 8' high. If opening is higher, additional weights are required.

Wall bolts are not included, but will be furnished on request at moderate price if thickness of wall is given.

For table giving quantity and lengths of wall bolts see page 296.

Width of Opening with 2 pr. Hangers	List Price	Weight per Set, Lbs.	Width of Opening with 2 pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$37.75	230	7 feet.....	\$45.75	292
3½ feet.....	38.75	235	7½ feet.....	46.75	297
4 feet.....	39.75	241	8 feet.....	47.75	303
4½ feet.....	40.75	258	8½ feet.....	48.75	308
5 feet.....	41.75	264	9 feet.....	49.75	326
5½ feet.....	42.75	269	9½ feet.....	50.75	331
6 feet.....	43.75	275	10 feet.....	51.75	337
6½ feet.....	44.75	286			

No. 204-2, 204-3 or No. 1204 Automatics only, weight 31 lbs. Per set.....	\$ 8.40
No. 204-2, 204-3 or No. 1204 Fixtures only, less Hangers, Track and Brackets; Binder, Chafe and Guide Roll Strips, weight 100 lbs. Per set.....	21.00
No. 204-84 Track only, with brackets, weight 4½ lbs. Per foot.....	.48
(Length of each track equals width of opening plus 8").	
No. 102-2 Hangers only, used with No. 204-2 Hardware, (page 298), weight 30 lbs. Per pair.....	5.00
No. 102-3 Hangers only, used with No. 204-3 Hardware, (page 298), weight 30 lbs. Per pair.....	5.00
No. 1102 Hangers with Back Plates used with No. 1204 Hardware, (page 298), weight 35 lbs. Per pair.....	5.00
No. 202 Adjustable Hangers only, (page 298), weight 36 lbs. Per pair.....	8.40
Double Link Fixtures can be furnished at, per set, additional.....	5.40

Discount.....



## R-W Single Link Round Track Fire Door Fixtures

For Sliding Doors in Pairs, Incline Track.

R-W No. 604-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors.

R-W No. 604-3 For Three-ply (2- $\frac{5}{8}$  inch) Tin Clad Doors.

R-W No. 1604 For "FyeR-Wall" Sheet Metal Doors.



Fig. A-1852—No. 604 Fire Door Fixtures Applied to Tin Clad Fire Doors.

This fixture is the same as No. 646 illustrated on pages 280, 281 except that it is applied to pairs of doors.

This type has one fusible link on each door and both are exposed in the opening.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings, as doors must lap four inches on each side and at top.

**Second**—Width and height of opening, (mention width first).

**Third**—Thickness of doors, if two-ply tin clad (1 $\frac{3}{4}$  inches), three-ply tin clad (2 $\frac{5}{8}$  inches) or "FyeR-Wall" sheet metal doors.

**Fourth**—Thickness of wall, when wall bolts are required, or when doors are used on both sides of wall, in which case special U wall plates are required for guide rollers, when walls are less than 12" thick.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings, to nearest obstructions overhead.

Fixtures require  $\frac{1}{2}$  width of opening plus 11 $\frac{1}{2}$  inches wall space on each side of opening. Twelve inches of headroom is required for non-adjustable hangers at center of opening, plus  $\frac{3}{4}$  inch for each foot the track extends beyond center of opening. Add 2 inches to above clearance for adjustable hangers.

Details of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and labeled Tin-Clad, and R-W "FyeR-Wall" sheet metal doors. Hardware, suitable for Saino and Merchants & Evans doors, furnished when required.



## R-W Single Link Round Track Fire Door Fixtures



Fig. A-1853—No. 1604 Fire Door Fixtures Applied to  
"FyeR-Wall" Sheet Metal Doors.

### List Price for Nos. 604-2, 604-3 and 1604 Fire Door Fixtures

The following list price includes non-adjustable hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and

screws for attaching parts to the door, heavy cast washers for wall bolts and necessary counter balance weights. Weights are furnished regularly for openings 8' high. If opening is higher, additional weights are required.

Wall bolts are not included, but will be furnished on request, at moderate price if thickness of wall is given.

For table giving quantity and lengths of wall bolts see page 296

Width of Opening with 2 pr. Hangers	List Price	Weight per Set, Lbs.	Width of Opening with 2 pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$37.65	195	7 feet.....	\$46.45	242
3½ feet.....	38.75	198	7½ feet.....	47.55	255
4 feet.....	39.85	206	8 feet.....	48.65	257
4½ feet.....	40.95	209	8½ feet.....	49.75	266
5 feet.....	42.05	216	9 feet.....	50.85	268
5½ feet.....	43.15	220	9½ feet.....	51.95	280
6 feet.....	44.25	224	10 feet.....	53.05	282
6½ feet.....	45.35	240			

No. 604-2, No. 604-3 or No. 1604 Automatics only, weight, 31 lbs. Per set.....\$ 8.40

No. 604-2, No. 604-3 or No. 1604 Fixtures only, less Hangers, Track and Brackets; Binder, Chafe and Guide Roll Strips, weight 98 lbs.  
Per set.....21.00

\*No. 542-C Track only, with brackets for two-ply tin clad doors, weight 2¼ lbs. Per foot......40

\*No. 542-C Track only, with brackets for three-ply tin clad doors, or "FyeR-Wall" sheet Metal Doors, weight 2¼ lbs. Per foot......40

No. 542-C Hangers only, with Back Plates, used with 604-2 Hardware, (page 298), weight 25½ lbs. Per pair.....5.10

No. 542-C Hangers only, used with 604-3 Hardware, (page 298), weight 22 lbs. Per pair.....5.10

No. 742 Hangers with Back Plates, used with No. 1604 Hardware, (page 298), weight 25½ lbs. Per pair.....5.10

No. 642-5 Adjustable Hangers only, (page 298), weight 35 lbs. Per pair.....10.00

**Note:** Double Link Fixtures can be furnished at per set additional.....5.40

\*Length of each track equals width of opening plus 7".

Discount.....



## R-W Single Link Flat Track Fire Door Fixtures

For Single Sliding Doors, Level Track

R-W No. 303-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors.

R-W No. 303-3 For Three-ply (2- $\frac{5}{8}$  inch) Tin Clad Doors.

R-W No. 1303 For "FyeR-Wall" Sheet Metal Doors.

(Requires 14" Headroom).

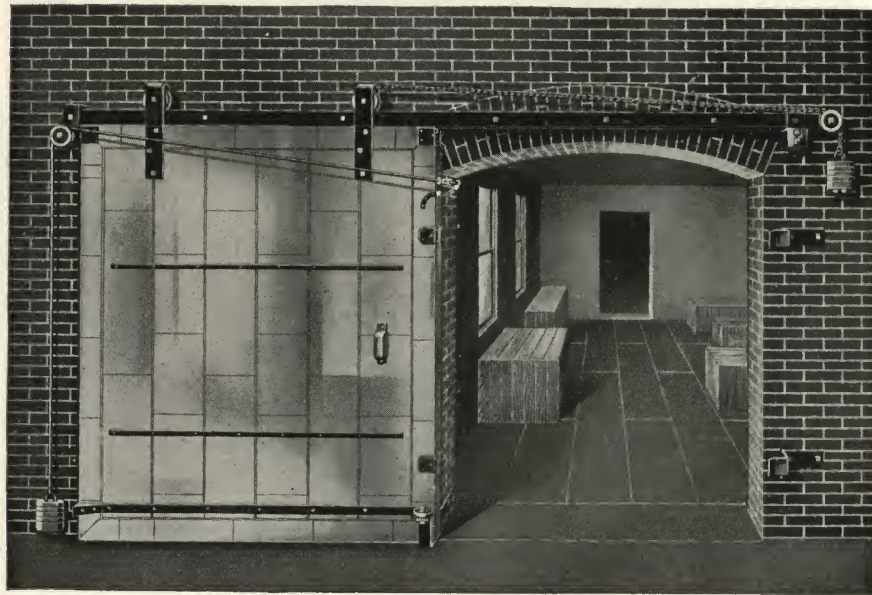


Fig. A-1854—No. 303 Fire Door Fixtures Applied to a Left Hand Tin Clad Fire Door.

This style of fixture is used for openings where there is not enough headroom to place track on an incline of  $\frac{3}{4}$  inch to the foot. Two sets of weights are used to balance the door. The back weights are held in position by a fusible link. In case of fire, this link fuses and allows back

weights to drop, and the front weights then pull the door shut.

This fixture is the same style as No. 201, shown on page 274 except that it operates on level track. This type has but one fusible link which is exposed in the opening.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings, as doors must lap four inches on each side and at top.

**Second**—Width and height of openings, (mention width first).

**Third**—Thickness of doors, if two-ply tin clad (1 $\frac{3}{4}$  inches), three-ply tin clad (2 $\frac{5}{8}$  inches) or "FyeR-Wall" sheet metal doors.

**Fourth**—Thickness of wall, when wall bolts are required, or when doors are used on both sides of wall, in which case special U Wall plates are required for guide rollers, when walls are less than 12 inches thick.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest obstructions overhead. Fixture requires 20 inches on side wall toward which door closes and width of opening plus 19 inches on opposite side. Minimum headroom 14 inches.

**Sixth**—Are fixtures desired for a right or left hand door?

Three inches additional headroom required for adjustable hangers.

Detail of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad, and R-W "FyeR-Wall" sheet metal doors. Hardware suitable for Saino and Merchant & Evans doors furnished when required.



## R-W Single Link Flat Track Fire Door Fixtures

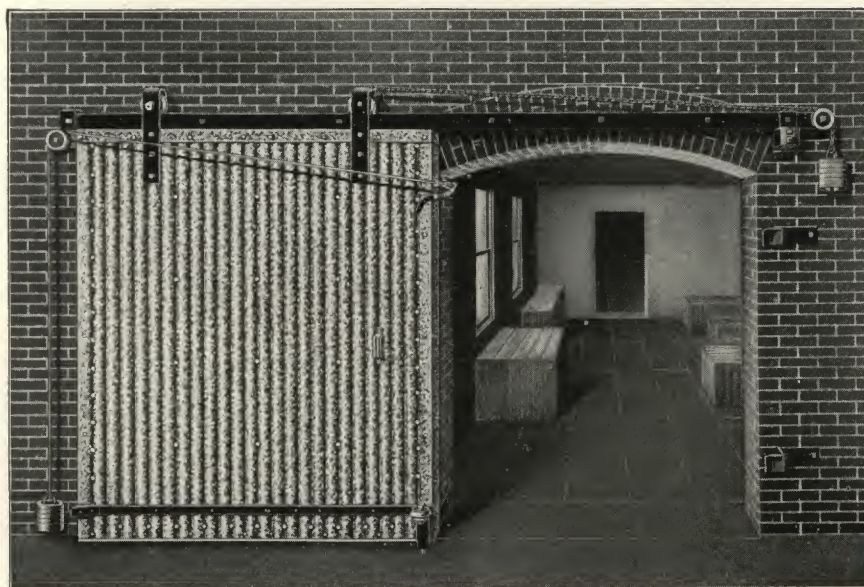


Fig. A-1855—No. 1303 Fire Door Fixtures Applied to  
"FyeR-Wall" Sheet Metal Left Hand Doors.

### List Price for Nos. 303-2, 303-3 and 1303 Fire Door Fixtures

The following list price includes non-adjustable hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and

screws for attaching parts to door, heavy cast washers for wall bolts and necessary counter balance weights. Weights are furnished regularly for openings 8' high. If opening is higher, additional weights are required.

Wall bolts are not included but will be furnished on request at moderate price if thickness of wall is given

For table giving quantity and lengths of wall bolts see pages 296 and 297.

Width of Opening with 1 pr. Hangers	List Price	Weight per Set, Lbs.	*Width of Opening with 1½ pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$23.95	182	6½ feet.....	\$31.65	254
3½ feet.....	24.75	188	7 feet.....	32.55	259
4 feet.....	25.55	202	7½ feet.....	33.45	265
4½ feet.....	26.35	208	8 feet.....	34.35	273
5 feet.....	27.15	213	8½ feet.....	35.25	279
5½ feet.....	27.95	225	9 feet.....	36.15	293
6 feet.....	28.75	233	9½ feet.....	37.05	299
			10 feet.....	37.95	304

No. 303-2, No. 303-3 or No. 1303 Automatics only, weight 59 lbs. Per set.....\$ 7.20

No. 303-2, No. 303-3 or No. 1303 Fixtures only, less Hangers, Track and Brackets; Binder, Chafe and Guide Roll Strips, weight 119 lbs.

Per set..... 14.50

†No. 303-84 Track only, with brackets, weight 4½ lbs. Per foot..... .48

No. 102-2x303 Hangers only, (page 298), weight 30 lbs. Per pair..... 5.00

No. 102-3x303 Hangers only, (page 298), weight 30 lbs. Per pair..... 5.00

No. 1102x1303 Hangers with Back Plates, (page 298), weight 35 lbs. Per pair..... 5.00

No. 202x303 Adjustable Hangers only, (page 298), weight 36 lbs. Per pair..... 8.50

\*For openings, (not doors), over six feet wide, Underwriters require three hangers.

†Length of track equals twice width of opening plus 29 inches.

Note— State whether fixtures are required for a right or left hand door.

Discount.....



## R-W Single Link Round Track Fire Door Fixtures

For Single Sliding Doors, Level Track

R-W No. 641-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors.

R-W No. 641-3 For Three-ply (2- $\frac{5}{8}$  inch) Tin Clad Doors.

R-W No. 1641 For "FyeR-Wall" Sheet Metal Doors.

(Requires 12" Headroom.)

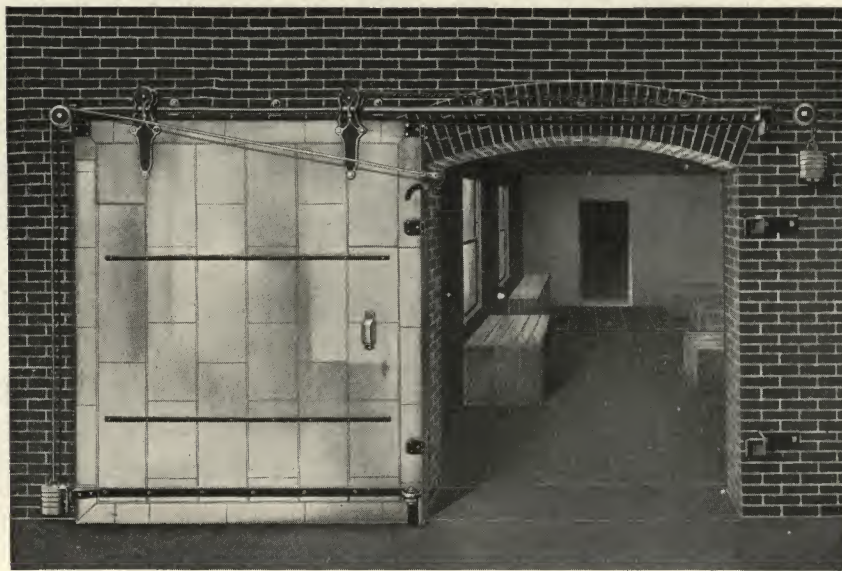


Fig. A-1856—No. 641 Fire Door Fixtures Applied to a  
Left Hand Tin Clad Fire Door.

This fixture is the same style as No. 646 shown on pages 280, 281 except that it operates on level track. This type has but one fusible link which is exposed in the opening.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings, as doors must lap four inches on each side and at top.

**Second**—Width and height of opening, (mention width first).

**Third**—Thickness of doors, if two-ply tin clad (1 $\frac{3}{4}$  inches), three-ply tin clad (2 $\frac{5}{8}$  inches) or "FyeR-Wall" sheet metal doors.

**Fourth**—Thickness of wall, when wall bolts are required, or when doors are used on both sides of wall, in which case special U wall plates are required for guide rollers, when walls are less than 12" thick.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest obstructions overhead.

**Sixth**—State whether fixtures are desired for a right or left hand door.

This fixture requires 12" of headroom, 19" of wall space on side toward which the door slides in closing, and width of opening plus 15" on opposite side of opening. Adjustable hangers require two inches additional headroom.

Detail of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad, and R-W "FyeR-Wall" sheet metal doors. Hardware suitable for Saino and Merchant & Evans doors furnished when required.



## R-W Single Link Round Track Fire Door Fixtures



Fig. A-1857—No. 1641 Fire Door Fixtures Applied to  
"FyeR-Wall" Sheet Metal Left Hand Doors.

### List Price for Nos. 641-2, 641-3 and 1641 Fire Door Fixtures

List price includes non-adjustable hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and screws for attach-

ing parts to door, heavy cast washers for wall bolts and necessary counter-balance weights. Weights are furnished regularly for openings 8' high. If opening is higher, additional weights are required.

Wall bolts are not included but will be furnished on request at moderate price if thickness of wall is given.

For table giving quantity and lengths of wall bolts see pages 296 and 297.

Width of Opening with 1 pr. Hangers	List Price	Weight per Set, Lbs.	*Width of Opening with 1½ pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$24.00	160	6½ feet.....	\$39.50	232
3½ feet.....	25.70	166	7 feet.....	40.50	237
4 feet.....	27.40	180	7½ feet.....	41.50	243
4½ feet.....	29.10	186	8 feet.....	42.50	251
5 feet.....	30.80	191	8½ feet.....	43.50	257
5½ feet.....	32.50	203	9 feet.....	44.50	271
6 feet.....	34.20	211	9½ feet.....	45.50	278
			10 feet.....	46.50	283

No. 641-2, No. 641-3 or No. 1641 Automatics only, weight 59 lbs. Per set.....\$ 7.20

No. 641-2, No. 641-3 or No. 1641 Fixtures only, less Hangers, Track and Brackets; Binder, Chafe and Guide Roll Strips, weight 119 lbs.

Per set.....13.00

†No. 542-C Track only with Brackets, for two-ply tin clad doors, weight, 2¼ lbs. Per foot......40

†No. 542-C Track only with Brackets, for three-ply tin clad doors, or "FyeR-Wall" Sheet Metal Doors, weight 2¼ lbs. Per foot......40

No. 542-Cx641 Hangers only with Back Plates, used with No. 641-2 Hardware, (page 298), weight 25½ lbs. Per pair.....5.10

No. 542-Cx641 Hangers only, used with No. 641-3 Hardware, (page 298), weight 22 lbs. Per pair.....5.10

No. 742x1641 Hangers with Back Plates, used with No. 1641 Hardware, (page 298), wt. 25½ lbs. Per pair.....5.10

No. 642-5 Adjustable Hangers only, (page 298), weight 32 lbs. Per pair.....10.00

†Length of track equals twice width of opening plus 15½ inches.

\*For openings, (not doors), over 6 feet wide, Underwriters require three hangers.

Note: State whether fixtures desired are for a right or left hand door.

Discount.....



## R-W Single Link Flat Track Fire Door Fixtures

For Single Sliding Doors, Drop Bracket Level Track.  
R-W No. 304-2 For Two-ply ( $1\frac{3}{4}$ -inch) Tin Clad Doors.  
R-W No. 304-3 For Three-ply ( $2\frac{5}{8}$ -inch) Tin Clad Doors.  
R-W No. 1304 For "FyeR-Wall" Sheet Metal Doors.  
(Requires 8" Headroom).

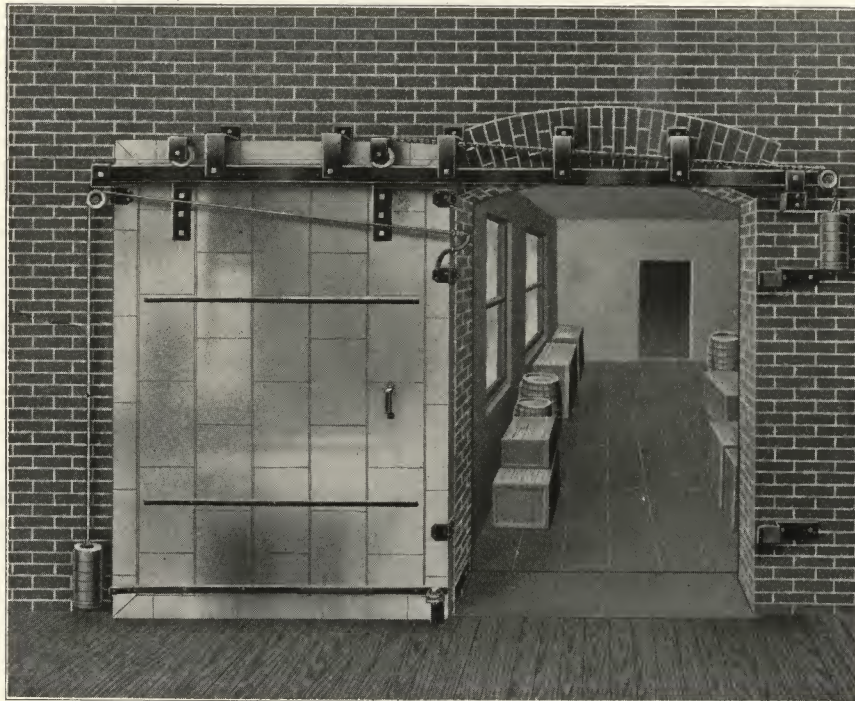


Fig. A-1858—No. 304 Fire Door Fixtures Applied to Left Hand Tin Clad Fire Door

This style fixture is operated the same as No. 303, illustrated on pages 286, 287, except the track is dropped down in front of door, reducing the amount of headroom required.

This type has but one fusible link, which is exposed in the opening.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings, as doors must lap four inches on each side and at top.

**Second**—Width and height of opening, (mention width first).

**Third**—Thickness of doors, if two-ply tin clad ( $1\frac{3}{4}$  inches), three-ply tin clad ( $2\frac{5}{8}$  inches), or "FyeR-Wall" Sheet Metal Doors.

**Fourth**—Thickness of wall, when wall bolts are required, or when doors are used on both sides of wall, in which case special U wall plates are required for guide rollers, when walls are less than 12" thick.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest obstructions overhead.

Minimum headroom 8 inches. Space required on side toward which door closes is 20 inches. On opposite side width of opening plus 19 inches.

**Sixth**—Are fixtures for a right or left hand door?

Details of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad, and R-W "FyeR-Wall" sheet metal doors. Hardware suitable for Saino and Merchant & Evans doors, furnished when required.



## R-W Single Link Flat Track Fire Door Fixtures

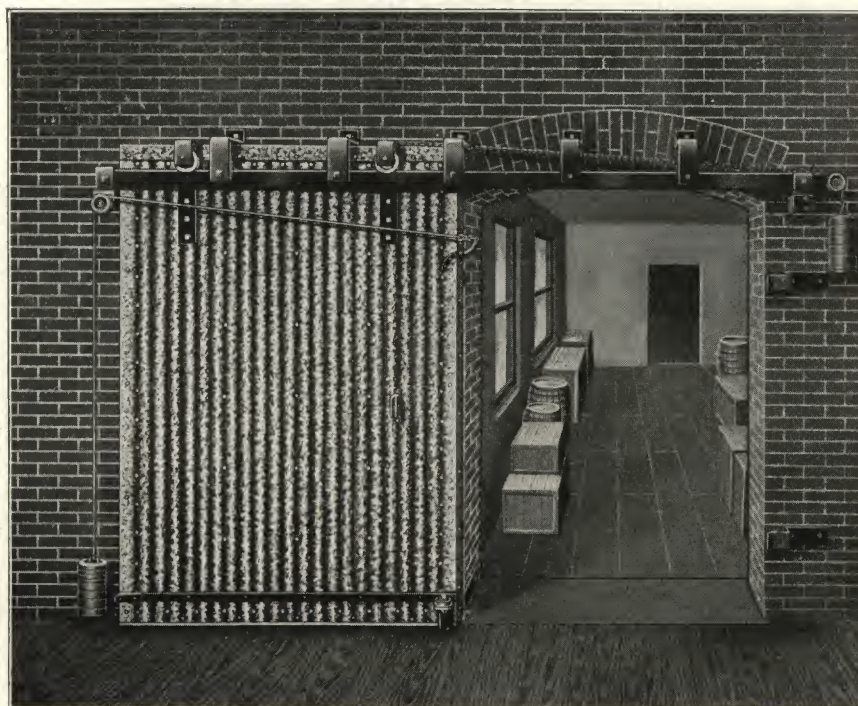


Fig. A-1859—No. 1304 Fire Door Fixtures Applied to "FyeR-Wall"  
Sheet Metal Left Hand Door.

### List Price for Nos. 304-2, 304-3 and 1304 Fire Door Fixtures

List price includes hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and screws for attaching parts to

door, heavy cast washers for wall bolts and necessary counter-balance weights. Weights are furnished regularly for openings 8' high. If opening is higher, additional weights are required.

Wall bolts are not included, but will be furnished on request at moderate price if thickness of wall is given.

For table giving quantity and lengths of wall bolts see pages 296 and 297.

Width of Opening with 1 pr. Hangers	List Price	Weight per Set, Lbs.	*Width of Opening with 1½ pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$28.50	211	6½ feet.....	\$37.70	299
3½ feet.....	29.40	217	7 feet.....	39.00	304
4 feet.....	30.30	227	7½ feet.....	40.30	310
4½ feet.....	31.20	235	8 feet.....	41.60	344
5 feet.....	32.10	250	8½ feet.....	42.90	350
5½ feet.....	33.00	268	9 feet.....	44.20	377
6 feet.....	33.90	278	9½ feet.....	45.50	383
			10 feet.....	46.80	388

No. 304-2, No. 304-3 or No. 1304, Automatics only, weight 37½ lbs. Per set.....\$ 7.30

No. 304-2, No. 304-3 or No. 1304 Fixtures only, less Hangers, Track and Brackets; Binders, Chafe and Guide Roll Strips, weight 102 lbs.

Per set..... 14.50

†No. 304-84 Track only, with Brackets, for two-ply tin clad doors, weight 8 lbs. Per foot..... 1.40

†No. 304-84 Track only, with Brackets, for three-ply tin clad doors or "FyeR-Wall" sheet metal doors, weight 8¼ lbs. Per foot..... 1.40

No. 102-3x303 Hangers only, used with No. 304-2 or No. 304-3 Hardware (page 298), wt. 30 lbs. Per pair..... 5.00

No. 1102x1303 Hangers with Back Plates, used with No. 1304 Hardware, (page 298) wt. 33½ lbs. Per pair, ..... 5.00

\*For openings, (not doors), over 6 feet wide, Underwriters require three hangers.

†Length of track equals twice width of opening plus 29 inches.

Note: State whether fixtures desired are for a right or left hand door.

Discount.....



## R-W Single Link Flat Track Fire Door Fixtures

For Pairs of Sliding Doors Level Track

R-W No. 302-2 For Two-ply (1-3/4 inch) Tin Clad Doors.

R-W No. 302-3 For Three-ply (2-5/8 inch) Tin Clad Doors.

R-W No. 1302 For "FyeR-Wall" Sheet Metal Doors.

(Requires 17" Headroom).



Fig. A-1860—No. 302 Fire Door Fixtures Applied to Tin Clad Fire Doors.

The above fixture is operated the same as regular No. 303 illustrated on pages 286, 287 except using double sliding doors.

Designed to meet special conditions such as not sufficient wall space on one side to slide a single door and where low

headroom will not permit the use of regular No. 204 fixtures.

This type has one fusible link on each door and both are exposed in the opening at all times.

### Directions for Ordering

See page 286 and give all information asked for.

This fixture requires 17 inches of headroom for non-adjustable hangers and half the width of opening plus 20 inches wall space on each side of opening. Add three inches headroom for adjustable hangers.

Detail of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad, and R-W "FyeR-Wall" sheet metal doors. Hardware suitable for Saino and Merchant & Evans Doors furnished when required.

### List Price for Nos. 302-2, 302-3 and 1302 Fire Door Fixtures

List price includes non-adjustable hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and screws

for attaching parts to door, heavy cast washers for wall bolts and necessary counter-balance weights. Weights are furnished regularly for openings 8 feet high. If opening is higher, additional weights are required.

**Wall bolts are not included, but will be furnished on request at moderate price if thickness of wall is given.**

For table giving quantity and lengths of wall bolts see page 296.

Width of Opening with 2 pr. Hangers	List Price	Weight per Set, Lbs.	Width of Opening with 2 pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$43.75	264	7 feet.....	\$51.75	326
3 1/2 feet.....	44.75	269	7 1/2 feet.....	52.75	331
4 feet.....	45.75	275	8 feet.....	53.75	337
4 1/2 feet.....	46.75	292	8 1/2 feet.....	54.75	342
5 feet.....	47.75	298	9 feet.....	55.75	360
5 1/2 feet.....	48.75	303	9 1/2 feet.....	56.75	365
6 feet.....	49.75	309	10 feet.....	57.75	371
6 1/2 feet.....	50.75	320			

No. 302-2, No. 302-3 or No. 1302 Automatics only, weight 79 lbs. Per set.....\$14.50

No. 302-2, No. 302-3 or No. 1302 Fixtures only, less Hangers, Track and Brackets; Binder, Chafe and Guide Roll Strips, weight 158 lbs.

Per set.....27.60

†No. 204-84 Track only, with Brackets, weight, 4 1/2 lbs. Per foot......48

No. 102-2x303 Hangers only (page 298), used with No. 302-2 fixtures, weight 30 lbs. Per pair.....5.00

No. 102-3x303 Hangers only (page 298), used with No. 302-3 fixtures, weight 30 lbs. Per pair.....5.00

No. 1102x1302 Hangers only, with Back Plates (page 298), used with No. 1302 fixtures, wt. 35 lbs. Per pair.....5.00

No. 202x303 Adjustable Hangers only (page 298), weight 35 lbs. Per pair.....8.50

†Length of each track equals width of opening plus 8 inches.

Discount.....



## R-W Single Link Flat Track Fire Door Fixtures

For Pairs of Sliding Doors Level Track Drop Bracket Type

R-W No. 305-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors

R-W No. 305-3 For Three-ply (2- $\frac{5}{8}$  inch) Tin Clad Doors.

R-W No. 1305 For "FyeR-Wall" Sheet Metal Doors.

(Requires 9" Headroom).



Fig. A-1861—No. 305 Fire Door Fixtures Applied to Tin Clad Fire Doors.

The above fixture is operated the same as regular No. 304 illustrated on pages 290 and 291 except using sliding doors in pairs.

Designed to meet special conditions such as not sufficient wall space on one side to slide a single door and where low

headroom will not permit the use of regular No. 204 fixtures.

This type has one fusible link on each door and both are exposed in the opening at all times.

### Directions for Ordering

See page 290 and give all information asked for.

This fixture requires 9 inches of headroom and half the width of opening plus 20 inches wall space on each side of opening.

Detail of parts shown on pages 276 and 277. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad and R-W "FyeR-Wall" sheet metal doors. Hardware suitable for Saino and Merchant & Evans Doors furnished when required.

### List Price for Nos. 305-2, 305-3 and 1305 Fire Door Fixtures

List price includes hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and screws for attaching parts

to door, heavy cast washers for wall bolts and necessary counter-balance weights. Weights are furnished regularly for openings 8 feet high. If opening is higher, additional weights are required.

Wall bolts are not included, but will be furnished on request at moderate price if thickness of wall is given.

For table giving quantity and lengths of wall bolts see pages 296-297.

Width of Opening with 2 pr. Hangers.	List Price	Weight per Set, Lbs.	Width of Opening with 2 pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$52.75	304	6 $\frac{1}{2}$ feet.....	\$63.90	400
3 $\frac{1}{2}$ feet.....	54.30	309	7 feet.....	65.50	406
4 feet.....	55.90	315	7 $\frac{1}{2}$ feet.....	67.10	411
4 $\frac{1}{2}$ feet.....	57.50	332	8 feet.....	68.70	457
5 feet.....	59.10	358	8 $\frac{1}{2}$ feet.....	70.30	462
5 $\frac{1}{2}$ feet.....	60.70	383	9 feet.....	71.90	500
6 feet.....	62.30	389	9 $\frac{1}{2}$ feet.....	73.50	505
			10 feet.....	75.10	511

No. 305-2, 305-3 or No. 1305 Automatics only, weight 79 lbs. Per set.....\$16.40

No. 305-2, 305-3 or No. 1305 Fixtures only, less Hangers, Track and Brackets; Binder, Chafe and Guide Roll Strips, weight 163 lbs. Per set.....32.00

†No. 204-84 Track only, with brackets for two-ply doors, used with No. 305-2 fixtures, weight 8 lbs. Per ft.....1.40

†No. 204-84 Track only, with brackets for three-ply doors, used with No. 305-3 fixtures, weight 8 lbs. Per ft.....1.40

No. 102-3x303 Hangers, used with No. 305-2 or 305-3 hardware (page 298), weight 30 lbs. Per pair.....5.00

No. 1102x1303 Hangers with back plates (page 298), used with No. 1305 hardware, weight 35 lbs. Per pair.....5.00

†Length of each track equals width of opening plus 8 inches.

Discount.....



## R-W Single Link Flat Track Fire Door Fixtures

For Single Sliding Doors, Incline Track.

R-W No. 104-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors

R-W No. 104-3 For Three-ply (2- $\frac{5}{8}$  inches) Tin Clad Doors.

New England Style

This fixture is designed to meet the demand for a less expensive outfit than the approved labeled fixtures and is used in territory where local boards do not require labeled hardware. The features of this fixture are that the link is exposed from both sides of opening, top binder, back stop and rope pulley are attached to track, saving expense of bolts and drilling wall. This construction prevents loosening of bolts, as shock is distributed over all track bolts.

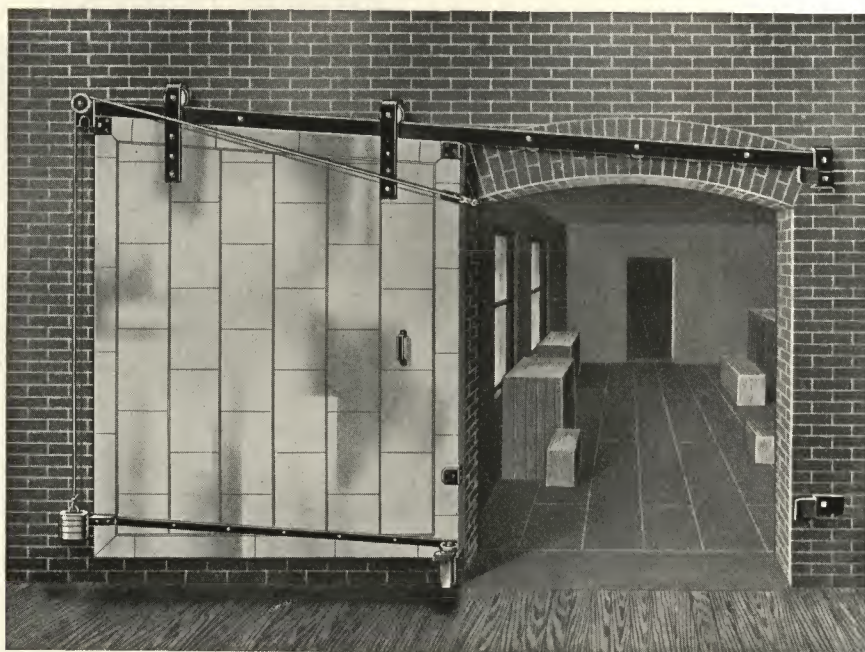


Fig. A-1862—No. 104 Fire Door Fixtures Applied to Left Hand Tin Clad Fire Door.

### List Price for Nos. 104-2 and 104-3 Fire Door Fixtures

List price includes hangers, track and fixtures complete for doors when used on one side of wall only. If doors are to be used on both sides of wall, double sets will be required and the price will be doubled. Fixtures packed complete with all bolts and screws for attaching parts to door,

heavy cast washers for wall bolts and necessary counter-balance weights. Weights are furnished regularly for openings 8' high. If opening is higher, additional weights are required.

Wall bolts are not included, but will be furnished on request at moderate price if thickness of wall is given.

Width of Opening with 1 pr. Hangers	List Price	Weight per Set, Lbs.	*Width of Opening with 1½ pr. Hangers	List Price	Weight per Set, Lbs.
3 feet.....	\$17.75	150	6½ feet.....	\$24.00	217
3½ feet.....	18.45	155	7 feet.....	24.70	223
4 feet.....	19.15	161	7½ feet.....	25.40	232
4½ feet.....	19.85	168	8 feet.....	26.10	243
5 feet.....	20.55	176	8½ feet.....	26.80	253
5½ feet.....	21.25	187	9 feet.....	27.50	261
6 feet.....	21.95	193	9½ feet.....	28.20	267
			10 feet.....	28.90	277

No. 104-2 or 104-3 Automatics only, weight 25 lbs. Per set.....	\$ 4.20
No. 104-2 or 104-3 Fixtures only, less Hangers, Track and Brackets; Binder, Chafe and Guide Roll Strips, weight 59 lbs. Per set.....	9.60
†No. 104-84 Track only, with brackets, weight 4½ lbs. Per foot.....	.46
No. 104-2 Hangers only (page 298), weight 30 lbs. Per pair.....	4.20
No. 104-3 Hangers only (page 298), weight 30 lbs. Per pair.....	4.20

\*For openings (not doors) over 6 feet wide Underwriters require three hangers.  
†Length of track equals twice width of opening plus 21 inches.

### Directions for Ordering

See page 274 and give all information asked for.

Square top opening requires 14 inches of headroom at edge of opening toward which the door slides in closing, plus  $\frac{3}{4}$ -inch more for each foot of track.

Arched top opening requires 14 inches headroom above the top of arch plus  $\frac{3}{4}$ -inch more for each foot the track extends beyond the center of opening.

Fixtures require 11 inches of side wall room on side toward which door slides in closing and the width of opening plus 22 inches on opposite side.

State whether fixtures are desired for a right or left hand door.

Details of parts shown on next page. See pages 256 and 257 for R-W Standard Approved and Labeled Tin Clad Fire Doors.

Discount.....



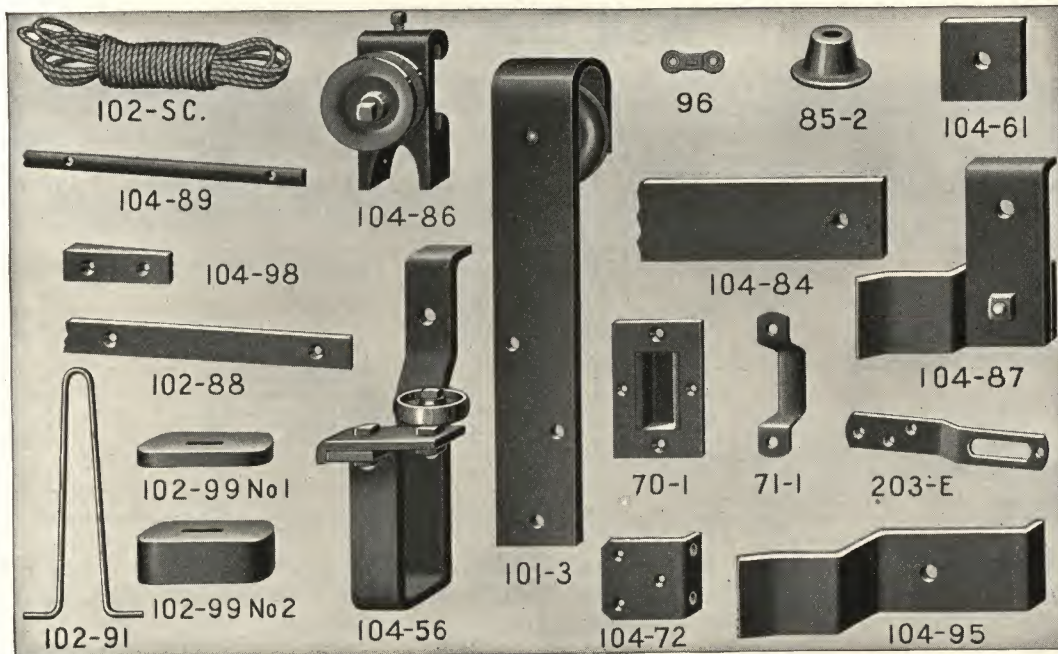


Fig. A-1863—Parts used with No. 104 Fire Door Fixtures. When ordering parts always give catalog number of parts wanted.

## Packing List for R-W No. 104-2 and No. 104-3 Fire Door Fixtures

104-2	104-3	DESCRIPTION	List Price
1	1	No. 56 Guide Roller, each	\$1.80
1	1	No. 70-1 Flush Pull, each	.27
1	1	No. 71-1 Bow Handle, each	.14
*	*	No. 85-2 Track Brackets. (See table below), each	.19
1 Pair	1 Pair	No. 101-3 Hangers. Openings over 6' wide require 1 1/2 pr. Per pair	4.20
*	*	No. 102-SC Sash Cord. Length as required. Per foot	.07
1 Pc.	1 Pc.	No. 102-88 Guide Roll Strips. Length equals width of opening plus 4", each	1.00
1	1	No. 102-91 Weight Holder, each	.18
*	*	No. 102-99 No. 1 Lightweights. (According to size of opening), each	.30
*	*	No. 102-99 No. 2 Heavyweights. (According to size of opening), each	.90
1 Pair	1 Pair	No. 104-2 Hangers. Openings over 6' wide require 1 1/2 pr. Per pair	4.20
3	3	No. 104-72 Bumper Shoes, each	.12
1 Run	1 Run	No. 104-84 Track Length equals twice width of opening plus 21", per foot	.46
1	1	No. 104-86 Back Bumper and Rope Pulley, complete	1.80
1	1	No. 104-87-2 Front Bumper and Binder, complete	1.20
1 Pc.	1 Pc.	No. 104-87-3 Front Bumper and Binder, complete	1.20
1	1	No. 104-89 Chafe Strips. Length equals width of opening less 4", each	.48
1	1	No. 104-95-2 Binder, each	.96
1	1	No. 104-95-3 Binder, each	.96
1	1	No. 104-98 Wedge, each	.12
*	*	No. 203-E Link Bracket, with No. 96 Fusible Link attached	.66
1	1	No. 366 3/4" Steel Washers. (See table below)	.12
		Package Screws and Bolts.	

Note—Are fixtures desired for a right or left hand door?

Discount.....

## Table of No. 366 Washers and No. 85-2 Track Brackets for Above Fixtures

Width of Opening	Number of Brackets	Number of Washers
3' 0" to 4' 6"	5	7
4' 7" to 5' 0"	6	8
5' 1" to 7' 6"	7	9
7' 7" to 8' 6"	9	11
8' 7" to 11' 0"	10	12
	Fixtures only require	2

## Wall Bolt List for No. 104-2 and No. 104-3 Fire Door Fixtures

Wall bolts furnished at prevailing market prices when customer requests them.

Fixture bolts are used to fasten.....	Opening 3' 0" to 4' 6" Wide	Opening 4' 7" to 5' 0" Wide	Opening 5' 1" to 7' 6" Wide	Opening 7' 7" to 8' 6" Wide	Opening 8' 7" to 11' 0" Wide	Length of Bolts for Sets Installed.	
						On One Side of Wall	On Both Sides of Wall
Binders.....	1	1	1	1	1	Wall thickness plus 2"	Wall thickness plus 2"
Guide Rollers.....	1	1	1	1	1	Wall thickness plus 1"	Wall thickness minus 3/4"
Center Track Brackets.....	4	5	6	8	9	Wall thickness plus 4"	Wall thickness plus 5"
End Track Brackets.....	1	1	1	1	1	Wall thickness plus 4"	Wall thickness plus 6"
Total.....	7	8	9	11	12		



## Wall Bolt Lists

Wall bolts are not furnished with sets of fixtures regularly, but will be furnished at prevailing market prices when thickness of wall is given and customer requests them. The tables below give the number and size of bolts required for various sized openings. Note that the number of bolts is the same for hardware installed on one or both sides of wall.

### Wall Bolt List for Nos. 102-2, 102-3, 1102, 201-2, 201-3 and 1201 Fire Door Fixtures

NUMBER OF  $\frac{3}{4}$ " BOLTS REQUIRED FOR VARYING WIDTHS OF DOORWAY OPENINGS

Fixture bolts are used to fasten.....	Opening 2' 0" to 4' 8" Wide	Opening 4' 9" to 5' 2" Wide	Opening 5' 3" to 7' 8" Wide	Opening 7' 9" to 8' 8" Wide	Opening 8' 9" to 11' 8" Wide	Opening 11' 9" to 13' 0" Wide	LENGTH OF BOLTS REQUIRED FOR SETS INSTALLED	
							On One Side of Wall	On Both Sides of Wall
							Wall thickness plus 2"	Wall thickness plus 2"
Binders.....	4	4	4	4	4	4	Wall thickness plus 1"	Wall thickness minus $\frac{3}{4}$ "
*Guide Rollers.....	1	1	1	1	1	1	Wall thickness plus 4"	Wall thickness plus 5"
End Track Brackets.....	2	2	2	2	2	2	Wall thickness plus 1"	Wall thickness minus $\frac{3}{4}$ "
Center Track Brackets.....	3	4	5	7	8	9		
Rear Binder Hook (in Nos. 1102 and 1201 sets only).....	1	1	1	1	1	1		
Total Bolts in Nos. 102-2, 102-3, 201-2 and 201-3 sets.....	10	11	12	14	15	16		
Total Bolts in Nos. 1102 and 1201 sets.....	11	12	13	15	16	17		

\*Wall Bolt not required when No. 102-80 Guide Rollers are Used

### Wall Bolt List for Nos. 645-2, 645-3, 1645, 646-2, 646-3 and 1646 Fire Door Fixtures

NUMBER OF  $\frac{3}{4}$ " BOLTS REQUIRED FOR VARYING WIDTHS OF DOORWAY OPENINGS

Fixture bolts are used to fasten.....	Openings up to 3' 2" Wide	Opening 3' 3" to 4' 8" Wide	Opening 4' 9" to 6' 0" Wide	Opening 6' 1" to 6' 11" Wide	Opening 7' 0" to 8' 8" Wide	Opening 8' 9" to 10' 0" Wide	Opening 10' 1" to 10' 5" Wide	Opening 10' 6" to 10' 11" Wide	LENGTH OF BOLTS REQUIRED FOR SETS INSTALLED	
									On One Side of Wall	On Both Sides of Wall
									Wall thickness plus 2"	Wall thickness plus 2"
Binders.....	4	4	4	4	4	4	4	4	Wall thickness plus 1"	Wall thickness minus $\frac{3}{4}$ "
*Guide Rollers.....	1	1	1	1	1	1	1	1	Wall thickness plus (A)	Wall thickness plus (B)
Front Track Brackets.....	1	1	1	1	1	1	1	1	Wall thickness plus 2"	Wall thickness plus 2"
Center Track Brackets.....	4	5	6	8	9	10	12	13	Wall thickness plus (C)	Wall thickness plus (D)
Rear Track Brackets.....	1	1	1	1	1	1	1	1	Wall thickness plus 1"	Wall thickness minus $\frac{3}{4}$ "
Rear Binder Hook (in Nos. 1645 and 1646 sets only).....	1	1	1	1	1	1	1	1	Wall thickness plus 6"	Wall thickness plus 10"
Weight Pulley (Nos. 641 and 1641 only).....	1	1	1	1	1	1	1	1		
Total Bolts in Nos. 645-2, 645-3, 646-2 and 646-3 Sets.....	11	12	13	15	16	17	19	20		
Total Bolts in Nos. 641, 1645 and 1646 sets.....	12	13	14	16	17	18	20	21		
Total Bolts in No. 1641 sets.....	13	14	15	17	18	19	21	22		

\*Wall Bolt not required when No. 102-80 Guide Rollers are used

- (A) 5" for 2-ply tin clad doors. 2  $\frac{1}{4}$ " for 3-ply tin clad or "FyeR-Wall" sheet metal doors  
 (B) 7  $\frac{1}{2}$ " for 2-ply tin clad doors. 2  $\frac{1}{4}$ " for 3-ply tin clad or "FyeR-Wall" sheet metal doors  
 (C) 6  $\frac{1}{2}$ " for 2-ply tin clad doors. 2  $\frac{1}{4}$ " for 3-ply tin clad or "FyeR-Wall" sheet metal doors  
 (D) 11" for 2-ply tin clad doors. 2  $\frac{1}{4}$ " for 3-ply tin clad or "FyeR-Wall" sheet metal doors

### Wall Bolt List for Nos. 204-2, 204-3 and 1204 Fire Door Fixtures

NUMBER OF  $\frac{3}{4}$ " BOLTS REQUIRED FOR VARYING WIDTHS OF DOORWAY OPENINGS

Fixtures Bolts are used to fasten.....	Opening 4' 0" to 4' 5" Wide	Opening 4' 6" to 4' 8" Wide	Opening 9' 9" to 10' 6" Wide	Opening 10' 7" to 13' 0" Wide	LENGTH OF BOLTS REQUIRED FOR SETS INSTALLED	
					On One Side of Wall	On Both Sides of Wall
					Wall thickness plus 1"	Wall thickness minus $\frac{3}{4}$ "
*Guide Rollers.....	2	2	2	2	Wall thickness plus 4"	Wall thickness plus 5"
Center Track Brackets.....	2	2	2	2	Wall thickness plus 4"	Wall thickness plus 6"
End Track Brackets.....	2	2	2	2	Wall thickness plus 1"	Wall thickness minus $\frac{3}{4}$ "
Rear Binder Hook (in 1204 set only).....	2	2	2	2	Wall thickness plus 4"	Wall thickness plus 6 $\frac{1}{2}$ "
Weight Pulleys (No. 302 and 1302 only).....	4	4	4	4	Wall thickness plus 5"	Wall thickness plus 8 $\frac{1}{2}$ "
Weight Pulleys (No. 305 and 1035 only).....	4	4	4	4		
Total Bolts in Nos. 204-2 and 204-3 Sets.....	10	12	14	16		
Total Bolts in No. 1204 sets only.....	12	14	16	18		
Total Bolts in Nos. 302 and 305 sets.....	14	16	18	20		
Total Bolts in Nos. 1302 and 1305 sets.....	16	18	20	22		

\*Wall Bolt not required when No. 102-80 Guide Rollers are used

### Wall Bolt List for Nos. 604-2, 604-3 and 1604 Fire Door Fixtures

NUMBER OF  $\frac{3}{4}$ " BOLTS REQUIRED FOR VARYING WIDTHS OF DOORWAY OPENINGS

Fixture bolts are used to fasten.....	Opening 4' 0" to 6' 3" Wide	Opening 6' 4" to 6' 8" Wide	Opening 6' 9" to 9' 6" Wide	Opening 9' 7" to 12' 8" Wide	Opening 12' 9" to 13' 0" Wide	LENGTH OF BOLTS REQUIRED FOR SETS INSTALLED	
						On One Side of Wall	On Both Sides of Wall
						Wall thickness plus 2"	Wall thickness plus 2"
Combination Center Bracket and Binder.....	1	1	1	1	1	Wall thickness plus 1"	Wall thickness minus $\frac{3}{4}$ "
*Guide Rollers.....	2	2	2	2	2	Wall thickness plus 2"	Wall thickness plus 2"
Center and Joint Track Brackets.....	6	8	10	12	14	Wall thickness plus (A)	Wall thickness plus (B)
Combination End Brackets and Bumpers.....	2	2	2	2	2	Wall thickness plus 1"	Wall thickness minus $\frac{3}{4}$ "
Rear Binder Hooks (in No. 1604 sets only).....	2	2	2	2	2		
Total Bolts in Nos. 604-2 and 604-3 sets.....	11	13	15	17	19		
Total Bolts in No. 1604 sets only.....	13	15	17	19	21		

\*Wall bolts not required when No. 102-80 Guide Rollers are used

- (A) 6  $\frac{1}{2}$ " for 2-ply Tin Clad Doors, 2  $\frac{1}{4}$ " for 3-ply  
 (B) 11" for 2-ply Tin Clad Doors, 2  $\frac{1}{4}$ " for 3-ply



## Wall Bolt Lists (Cont.)

Wall Bolts are not furnished with sets of fixtures regularly but will be furnished at prevailing market prices when thickness of wall is given and customer requests them. The tables below gave the number and size of bolts required for the various sized openings. Note that the number of bolts is the same for hardware installed on one or both sides of wall.

### Wall Bolt List for Nos. 303-2, 303-3 and 1303 Fire Door Fixtures

Number of  $\frac{3}{4}$  Inch Bolts Required for Varying Widths of Doorway Openings

Fixture Bolts are Used to Fasten	Opening 2' 0" to 4' 8"	Opening 4' 9" to 5' 2"	Opening 5' 3" to 7' 8"	Opening 7' 9" to 8' 8"	Opening 8' 9" to 11' 8"	Opening 11' 9" to 13' 0"	LENGTH OF BOLTS REQUIRED FOR SETS INSTALLED	
							On One Side of Wall	On Both Sides of Wall
							Wall thickness plus 2" Wall thickness plus 1" Wall thickness plus 4" Wall thickness plus 4" Wall thickness plus 1"	Wall thickness plus 2" Wall thickness minus $\frac{3}{4}$ " Wall thickness plus 6" Wall thickness plus 5" Wall thickness minus $\frac{3}{4}$ "
Binders.....	4	4	4	4	4	4		
*Guide Rollers.....	1	1	1	1	1	1		
End Track Brackets.....	2	2	2	2	2	2		
Center Track Brackets.....	3	4	5	7	8	9		
Rear Binder Hook for No. 1303 sets only.....	1	1	1	1	1	1		
Total Bolts in No. 303-2 and No. 303-3 sets.....	10	11	12	14	15	16		
Total Bolts in No. 1303 sets.....	11	12	13	15	16	17		

\*Wall bolts not required when No. 102-80 Guide Rollers are used.

### Wall Bolt List for Nos. 304-2, 304-3 and 1304 Fire Door Fixtures

Number of  $\frac{3}{4}$  Inch Bolts Required for Varying Widths of Doorway Openings

Fixture Bolts are Used to Fasten	Opening 2' 0" to 4' 8"	Opening 4' 9" to 5' 2"	Opening 5' 3" to 7' 8"	Opening 7' 9" to 8' 8"	Opening 8' 9" to 11' 8"	Opening 11' 9" to 13' 0"	LENGTH OF BOLTS REQUIRED FOR SETS INSTALLED	
							On One Side of Wall	On Both Sides of Wall
							Wall thickness plus 2" Wall thickness plus 1" Wall thickness plus 2" †Wall thickness plus 7" Wall thickness plus 1"	Wall thickness plus 2" Wall thickness minus $\frac{3}{4}$ " Wall thickness plus 2" †Wall thickness plus 11" Wall thickness minus $\frac{3}{4}$ "
Binders.....	4	4	4	4	4	4		
*Guide Roller.....	1	1	1	1	1	1		
Drop Brackets.....	3	4	5	7	8	9		
End Track Brackets.....	2	2	2	2	2	2		
Rear Binder Hook for No. 1304 Fixtures only.....	1	1	1	1	1	1		
Total Bolts in Nos. 304-2 and 304-3 sets only.....	10	11	12	14	15	16		
Total Bolts in No. 1304 sets.....	11	12	13	15	16	17		

\*Wall bolts not needed when 102-80 Guide Rollers are used.

†For two-ply tin clad doors, wall thickness plus 6".

‡For two-ply tin clad doors, wall thickness plus 9".

## List Price of Machine Bolts

### Square Heads and Square Nuts. Price Per Hundred

Length Inches	Diameter $\frac{1}{2}$ "	Diameter $\frac{5}{8}$ "	Diameter $\frac{3}{4}$ "	Length Inches	Diameter $\frac{5}{8}$ "	Diameter $\frac{3}{4}$ "
1½	\$ 3.60	.....	.....	16	\$16.22	\$23.65
2	3.86	.....	.....	17	16.98	24.75
3	4.38	.....	.....	18	17.74	25.85
4	4.90	.....	.....	19	18.50	26.95
5	5.42	.....	.....	20	19.26	28.05
6	5.94	\$ 8.62	\$12.65	21	.....	29.15
7	6.46	9.38	13.75	22	.....	30.25
8	6.98	10.14	14.85	23	.....	31.35
9	7.50	10.90	15.95	24	.....	32.45
10	8.02	11.66	17.05	25	.....	33.55
11	8.54	12.42	18.15	26	.....	34.65
12	9.06	13.18	19.25	27	.....	35.75
13	9.58	13.94	20.35	28	.....	36.85
14	10.10	14.70	21.45	29	.....	37.95
15	10.62	15.46	22.55	30	.....	39.05

Discount.....



## R-W Fire Door Hangers

These Hangers are Inspected by Underwriters' Laboratories, (Inc.) under direction of the National Board of Fire Underwriters.



No. 102-3 Hanger used with Nos. 102-3, 201-3, 204-3 fixtures. No. 102-3 x 303 Hangers for use with Nos. 303-3, 304-2, 304-3, 302-3, 305-2 and 305-3 fixtures are the same as the above except that there is a hole in the top of pendant for attaching chain.



No. 102-2 Hanger used with Nos. 102-2, 201-2, 204-2 fixtures. No. 102-2 x 303 Hangers for use with Nos. 303-2 and 302-2 are the same as above except there is a hole in the top of pendant for attaching chain.



No. 202 Adjustable Flat Track Hanger used where adjustable feature is desired.



No. 1102 Hanger with back plate, used with Nos. 1102, 1201, 1204 fixtures. No. 1102 x 303 Hangers for use with Nos. 1303, 1304, 1302 and 1305 fixtures are the same as above except that there is a hole in the top of pendant for attaching chain.



No. 742 Hanger with back plate, used with Nos. 1645, 1646, 1604 fixtures. No. 742 x 641 Hanger for use with No. 1641 fixtures are the same as above except that there is a hole in the top of the pendant for attaching chain.



No. 542-CS-2 Hanger



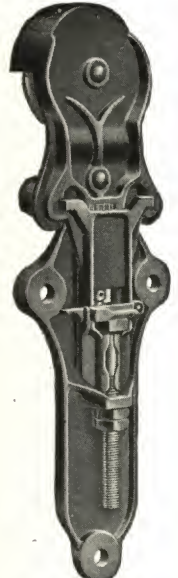
No. 542-CM-2 Hanger



No. 542-CM-3 Hanger



No. 542-CS-3 Hanger



No. 642-5 Adjustable Round Track Hanger, used where adjustable feature is desired.

**Steel Frame**  
No. 542-CS-2 and 542-CM-2 Hangers used with Nos. 645-2, 646-2 and 604-2 fixtures. No. 542-CS-2 x 641 and 542-CM-2 x 641 Hangers for use with No. 641-2 fixtures are the same as above except that there is a hole in the top of pendant for attaching chain. Either steel or malleable iron frame hangers serve the same purpose.

**Malleable Iron Frame**

No. 542-CM-3 and 542-CS-3 Hangers used with Nos. 645-3, 646-3 and 604-3 fixtures. No. 542-CM-3 x 641 and 542-CS-3 x 641 Hangers for use with No. 641-3 fixtures are the same as above except that there is a hole in the top of pendant for attaching chain. Either steel or malleable iron frame hangers serve the same purpose.

### List Price

No. 102-3 and No. 102-3x303 Hangers.	Shipping weight, 30 lbs.	Per pair.....	\$ 5.00
No. 102-2 and No. 102-2x303 Hangers.	Shipping weight, 30 lbs.	Per pair.....	5.00
No. 202 Adjustable Flat Track Hangers.	Shipping weight, 36 lbs.	Per pair.....	8.50
No. 1102 and No. 1102x303 Hangers.	Shipping weight, 35 lbs.	Per pair.....	5.00
No. 742 and No. 742x641 Hangers.	Shipping weight, 25½ lbs.	Per pair.....	5.00
No. 542-CM (or CS)-2 and No. 542-CM (or CS)-2x641 Hangers.	Shipping weight, 22 lbs.	Per pair.....	6.00
No. 542-CM (or CS)-3 and No. 542-CM (or CS)-3x641 Hangers.	Shipping weight 25½ lbs.	Per pair.....	6.00
No. 642-5 Adjustable Round Track Hanger.	Shipping weight, 32 lbs.	Per pair.....	12.00

Discount.....



## R-W Two Section Vertical Fire Door Fixtures

No. 402-2 for Two-ply ( $1\frac{3}{4}$ " ) Tin Clad Doors.

No. 402-3 for Three-ply ( $2\frac{5}{8}$ " ) Tin Clad Doors.

No. 1402 for "FyeR-Wall" Sheet Metal Doors.

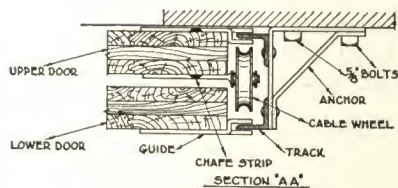


Fig. A-1864

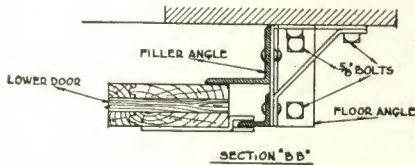


Fig. A-1865

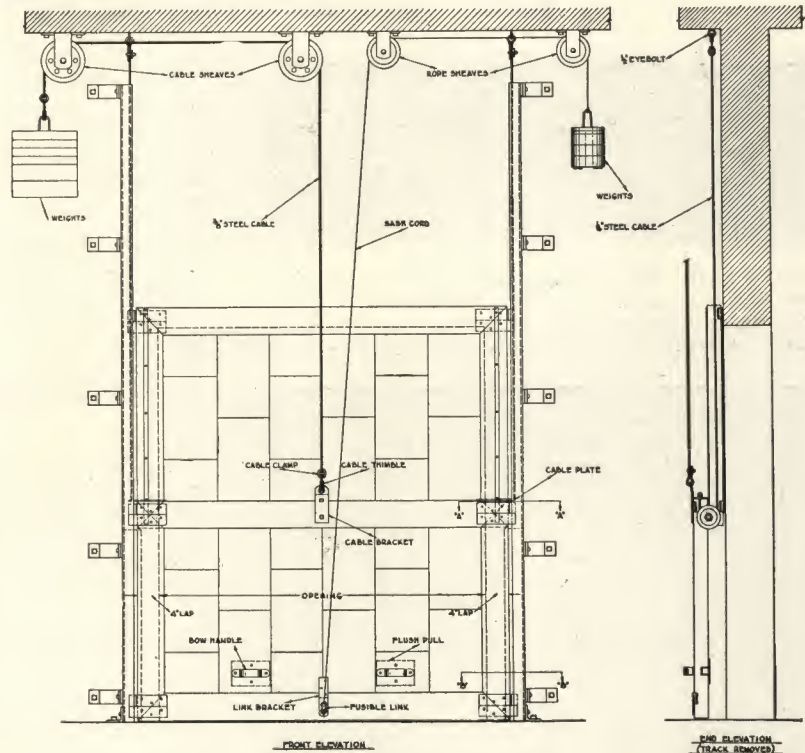


Fig. A-1866

Fig. A-1868

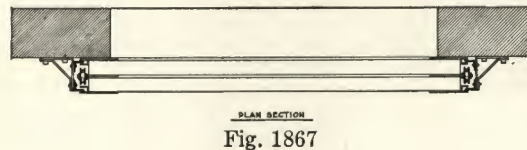


Fig. 1867

This type of fixture may be used where there is insufficient side wall space for sliding doors and insufficient head room for one section vertical doors.

The following list price includes guides, track and fixtures complete with all bolts and screws for attaching parts to door and heavy cast washers for wall bolts. Counter balance weights are not included in list price or weight of fixtures. Wall bolts are not included in list price but will be furnished at moderate price if thickness of wall is given.

### List Price

Height of Opening	Doors less than 300 lbs. List Price	*Doors 300 lbs. and over List Price
5 feet.....	\$155.00	\$170.00
6 feet.....	170.00	185.00
7 feet.....	185.00	205.00
8 feet.....	205.00	215.00
9 feet.....	215.00	235.00
10 feet.....	235.00	250.00

\*Doors over 300 lbs. have a double set of pulleys for large weights arranged similar to pulleys shown with No. 203 hardware on next page.  
Counter balance weights. Per lb.....\$ .10

Discount.....



## R-W Two Link Flat Track Vertical Fire Door Fixtures

For Single Vertical Doors

R-W No. 203-2 or 203-U-2 For Two-ply (1-3/4 inch) Tin Clad Doors.

R-W No. 203-3 or 203-U-3 For Three-ply (2-3/8 inch) Tin Clad Doors.

R-W No. 1203 or 1203-U For "FyeR-Wall" Sheet Metal Doors.

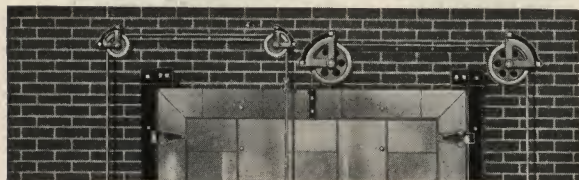


Fig. A-1869—This arrangement is approved by Underwriters for openings not over 20 square feet in area with neither height nor width exceeding 5 feet, provided the openings are not used for passage of people.

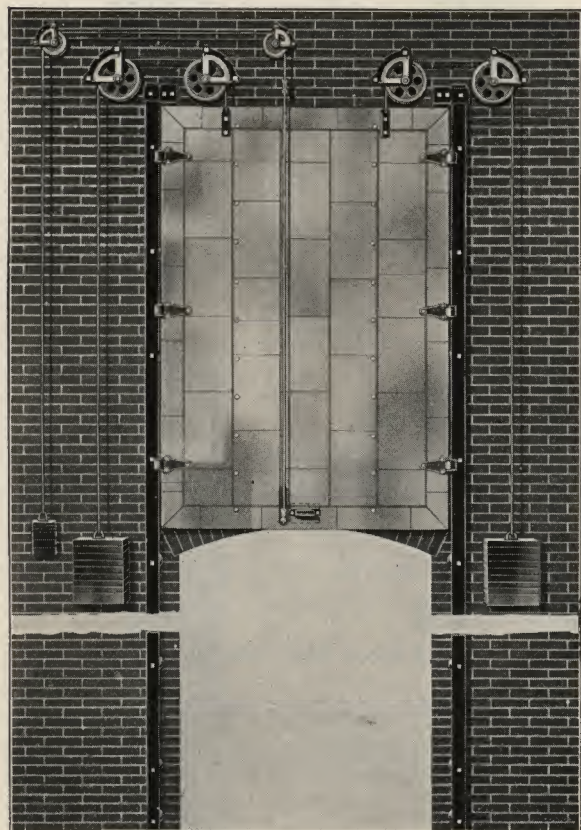


Fig. A-1870—This arrangement approved by Underwriters for openings not exceeding 80 square feet in area with neither width nor height exceeding 10 feet.

This hardware is approved and labeled under directions of the National Board of Fire Underwriters. This type or fixture is recommended only for openings where slide or swing fixtures cannot be used on account of obstructions. The vertical balance fire doors and fixtures are made to act by gravity and close automatically at the approach of fire. Two sets of weights will balance doors weighing less than three hundred pounds (see Fig. A-1869, with note below); three sets will balance doors weighing three hundred pounds and over (see Fig. A-1870, with note below). As shown in the illustration, the fusible link is in the circuit which supports the light weight. Heavy counterbalance weights are attached by wire cable to the top of door and are adjusted to prevent sudden dropping of the door, allowing same to close slowly when link fuses, which releases the small weights. Upper illustration shows fixtures for doors weighing less than three hundred pounds, lower illustration for doors weighing three hundred pounds and over.

### List Price

The following list price includes guides, track and fixtures complete with all bolts and screws for attaching parts to door and heavy cast washers for wall bolts. If doors are used on both sides of wall, double sets will be required and the price will be doubled. Counterbalance weights are not included in list price or weight of fixtures. Wall bolts also are not included but will be furnished on request at moderate price if thickness of wall is given.

For 1 set of large weights, not approved by Underwriters. (See Fig. A-1869)

Cat. No.	Height of Opening	Weight	List Price
Nos. 203-2, 203-3 or 1203 (State which is wanted.)	5'	201	\$33.75
	6'	219	36.00
	7'	237	38.90
	8'	255	41.00
	9'	273	43.50
	10'	291	46.00

For 2 sets of large weights, approved by Underwriters. (See Fig. A-1870)

Cat. No.	Height of Opening	Weight	List Price
Nos. 203U-2, 203-U-3 or 1203-U (State which is wanted.)	5'	238	\$45.50
	6'	256	48.25
	7'	274	51.00
	8'	292	54.00
	9'	310	56.50
	10'	328	59.50

No. 203 or 1203 Hardware for openings up to 5 feet high, for openings not used for passage of people, approved by Underwriters, weight per set, 201 pounds. Per Set..... \$33.75

\*No. 203-2, 203-3 or 1203 fixtures only, weight 101 lbs. for doors less than 300 lbs. Per set..... \$21.50

\*No. 203-2, 203-3 or 1203 fixtures only, weight 138 lbs., for doors 300 lbs. and over. Per set..... 31.60

No. 203-84 track only, with brackets, weight 4 1/2 lbs. Per foot..... .50

No. 203 Counter-balance weights. Per lb..... .10

\*Fixtures only do not include track, cable, sash cord or weights.

### Discount

See Page 303 for Packing List and Price of Parts

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If later, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings, as doors must lap four inches on each side and at top.

**Second**—Width and height of opening (mention width first).

**Third**—Thickness of doors, if two-ply tin clad (1 3/4-inch), three-ply tin clad (2 3/8-inch) or "FyeR-Wall" sheet metal doors.

**Fourth**—Thickness of walls, when wall bolts are required.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest obstructions overhead.

This fixture requires height of opening plus 19 inches of headroom and 15 inches and 21 inches of side wall room for doors weighing less than 300 lbs.; 21 and 28 inches side wall room for doors weighing 300 lbs. and over. Heavy weights should be specified equal to 7/8 weight of door and small weights equal to 1/8 weight of door.

Detail of parts shown on pages 302 and 303. See pages 253 and 257 for R-W Standard Approved and Labeled Tin Clad and R-W "FyeR-Wall" sheet metal doors. Hardware suitable for Merchant & Evans doors furnished when required.



## R-W Two Link Round Track Vertical Fire Door Fixtures

### For Single Vertical Doors

R-W No. 603-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors.

R-W No. 603-3 For Three-ply (2- $\frac{5}{8}$  inch) Tin Clad Doors.

R-W No. 1603 For "FyeR-Wall" Sheet Metal Doors.

This type of fixture is used for openings where obstructions do not permit the use of slide or swing fixtures.

Fixtures are the same as shown on opposite page, except that round track and guides are used.

Upper illustration, Fig. A-1871, shows fixtures for doors weighing less than 300 lbs.

Lower illustration, Fig. A-1872, shows fixtures for doors weighing 300 lbs. and over.

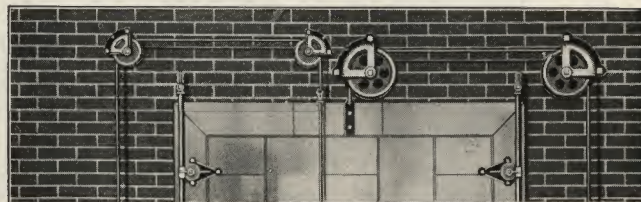


Fig. A-1871

### List Price

The following list price includes guides, track and fixtures complete with all bolts and screws for attaching parts to door, and heavy cast washers for wall bolts.

If doors are used on both sides of wall, double sets will be required and the price will be doubled.

Counter-balance weights are not included in list price or weights of fixtures.

Wall bolts also are not included, but will be furnished on request at moderate price if thickness of wall is given.

Height of Opening	Doors less than 300 lbs		Doors 300 lbs and over	
	List Price	Weight pounds	List Price	Weight pounds
5 feet.....	\$33.75	164	\$45.50	210
6 feet.....	36.00	177	48.25	223
7 feet.....	38.90	190	51.00	236
8 feet.....	41.00	203	54.00	249
9 feet.....	45.50	216	56.50	262
10 feet.....	46.00	229	59.50	275

\*No. 603-2, 603-3 or 1603 fixtures only, weight 93 lbs., for doors less than 300 lbs. Per set.....\$21.50

\*No. 603-2, 603-3 or 1603 fixtures only, weight 129 lbs., for doors 300 lbs. and over. Per set.....31.60

No. 603-TK Track only with brackets for two-ply Tin Clad Doors, weight 3 lbs. Per foot......50

No. 603-TK Track only with brackets for three-ply Tin Clad Doors, or "FyeR-Wall" sheet metal doors, weight 3  $\frac{1}{4}$  lbs. Per foot......50

No. 203 Counter-balance weights. Per pound......10

\*Fixtures only do not include track, cable, sash cord or weights.

Discount.....

See Page 303 for Packing List and Price of Parts

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall. Do not say doors when you mean openings as doors must lap four inches on each side and at top.

**Second**—Width and height of opening (mention width first).

**Third**—Thickness of doors if two-ply Tin Clad (1 $\frac{3}{4}$ -inch), three-ply Tin Clad (2 $\frac{5}{8}$ -inch) or "FyeR-Wall" Sheet Metal Doors.

**Fourth**—Thickness of walls, when wall bolts are required.

**Fifth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest obstructions overhead.

This fixture requires height of opening plus 19 inches of headroom and 16 inches and 22 inches of side wall room for doors weighing less than 300 lbs.; 22 and 29 inches side wall room for doors weighing 300 lbs. and over. Heavy weights should be specified equal to  $\frac{7}{8}$  weight of door and small weights to  $\frac{1}{8}$  weight of door.

Detail of parts shown on page 302. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad and R-W "FyeR-Wall" Sheet Metal Doors.

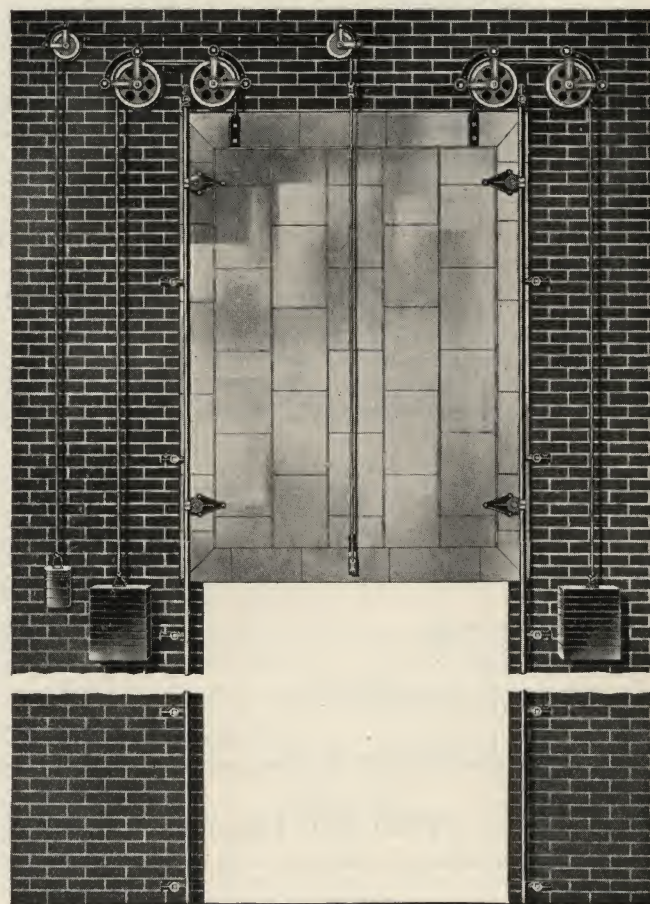


Fig. A-1872



## Detail of Parts for Nos. 203 and 603 Vertical Sliding Fire Door Fixtures

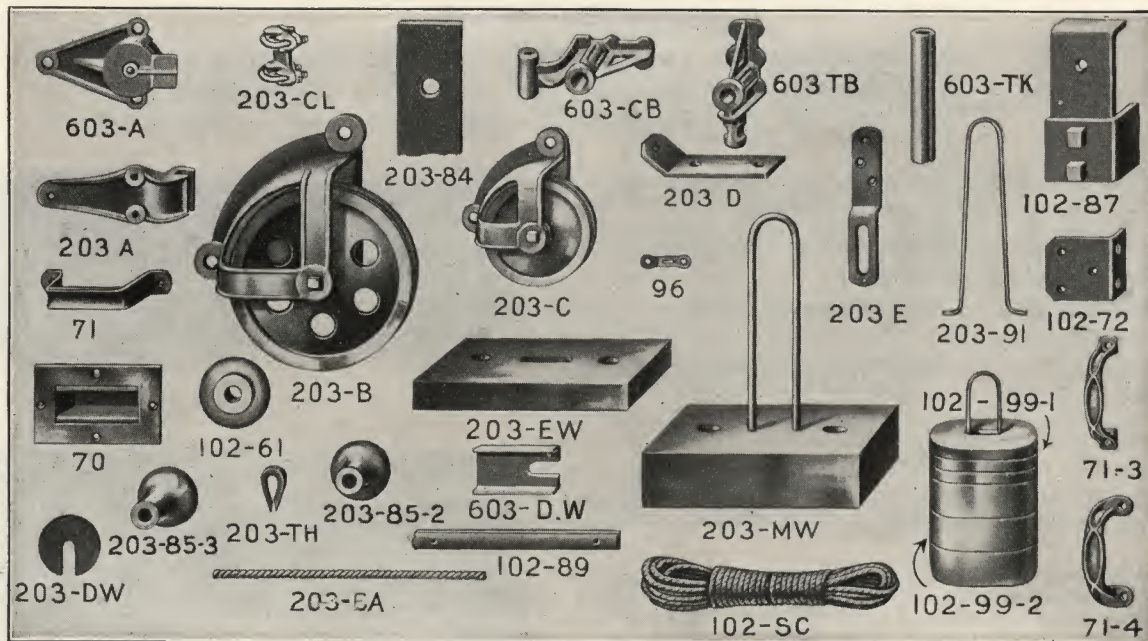


Fig. A-1873—For Description and Prices See Next Page

### Wall Bolt List for Nos. 203-2, 203-3 and 1203 Fire Door Fixtures

Wall Bolts are not furnished with sets of fixtures regularly but will be furnished at prevailing market prices when thickness of wall is given and customer requests them. The table below gives the number

and size of bolts required for various sized openings. Note that the number of bolts is the same for hardware installed on one or both sides of wall.

Fixture Bolts are Used to Fasten .....	Opening up to 4' 10" high	Opening 4' 11" to 7' 6" high	Opening 7' 7" to 10' 2" high	Opening 10' 3" to 12' 10" high	Length of Bolts for:			
					No. 203-2 Fixtures		No. 203-3 and 1203 Fixtures	
					On One Side of Wall	Both Sides of Wall	On One Side of Wall	Both Sides of Wall
Center Track Brackets .....	10	14	18	22	Wall thickness plus 3 1/2"	plus 4 1/2"	Wall thickness plus 4 1/2"	plus 6"
Top Track Brackets .....	2	2	2	2	Wall thickness plus 4 1/2"	plus 5"	Wall thickness plus 5 1/2"	plus 7"
Cable Pulleys .....								
With one set of heavy weights .....	4	4	4	4	Wall thickness plus 3"	plus 3"	Wall thickness plus 3"	plus 3"
With two sets of heavy weights .....	8	8	8	8	Wall thickness plus 3"	plus 3"	Wall thickness plus 3"	plus 3"
*Rope Pulley .....	4	4	4	4	Wall thickness plus 3"	plus 3"	Wall thickness plus 3"	plus 3"
Total 3/4" Bolts in sets for doors less than 300 lbs. ....	16	20	24	28				
Total 5/8" Bolts in sets for doors less than 300 lbs. ....	4	4	4	4				
Total 3/4" Bolts in sets for doors 300 lbs. and over. ....	20	24	28	32				
Total 5/8" Bolts in sets for doors 300 lbs. and over. ....	4	4	4	4				

### Wall Bolt List for Nos. 603-2, 603-3 and 1603 Fire Door Fixtures

Fixture Bolts Are Used to Fasten .....	Opening 2' 10" to 3' 9" high	Opening 3' 10" to 4' 9" high	Opening 4' 10" to 5' 9" high	Opening 5' 10" to 6' 9" high	Opening 6' 10" to 7' 9" high	Opening 7' 10" to 8' 9" high	Opening 8' 10" to 9' 9" high	Opening 9' 10" to 10' 9" high	Length of Bolts for:			
									603-2 Fixtures		603-3 and 1063 Fixtures	
									On One Side of Wall	Both Sides of Wall	On One Side of Wall	On Both Sides of Wall
Track Brackets .....	10	12	14	16	18	20	22	24	Wall thickness plus 5"	plus 8"	Wall thickness plus 6"	plus 10"
Cable Pulleys .....												
Doors less than 300 lbs. ....	4	4	4	4	4	4	4	4	Wall thickness plus 3"	plus 3"	Wall thickness plus 3"	plus 3"
Doors 300 lbs. and over. ....	8	8	8	8	8	8	8	8	Wall thickness plus 3"	plus 3"	Wall thickness plus 3"	plus 3"
*Rope Pulley .....	4	4	4	4	4	4	4	4	Wall thickness plus 3"	plus 3"	Wall thickness plus 3"	plus 3"
Total 3/4" Bolts in sets for doors less than 300 lbs. ....	14	16	18	20	22	24	26	28				
Total 5/8" Bolts in sets for doors less than 300 lbs. ....	4	4	4	4	4	4	4	4				
Total 3/4" Bolts in sets for doors 300 lbs. and over. ....	18	20	22	24	26	28	30	32				
Total 5/8" Bolts in sets for doors 300 lbs. and over. ....	4	4	4	4	4	4	4	4				

\*NOTE: All Track and Cable Pulley Bolts are 3/4" diameter. Rope Pulley Bolts are 5/8" diameter.



## Packing List and List Price of Parts Used on Nos. 203, 1203, 603 and 1603 Fixtures

No. 203-2 or 603-2 For Doors with 1 set h'vy wts.   2 sets h'vy wts.		No. 203-3 or 603-3 For Doors with 1 set h'vy wts.   2 sets h'vy wts.		No. 1203 or 1603 For Doors with 1 set h'vy wts.   2 sets h'vy wts.		DESCRIPTION	List Price
1	1	1	1			No. 70-1 Flush Pull, each.....	\$ .27
1	1					No. 70-2 Flush Pull, each.....	.33
		1	1			No. 71-1 Bow Handle, each.....	.14
				1	1	No. 71-2 Bow Handle, each.....	.20
				1	1	No. 71-3 Bow Handle, each.....	.30
						No. 71-4 Bow Handle, each.....	.35
1 Pc.	1 Pc.	1 Pc.	1 Pc.	1 Pc.	1 Pc.	No. 96 Fusible Links, each.....	.30
*	*	*	*	*	*	No. 102-SC Sash Cord, per ft.....	.07
2 Pcs.	2 Pcs.	2 Pcs.	2 Pcs.			No. 102-61 Cast Washers, each.....	.18
*	*	*	*	*	*	No. 102-89 Chafe Strips. Length equals height of opening less 4" each.	.50
2	4	2	4	2	4	No. 102-99 Weights, 1/2 weight of doors, per lb.....	.10
2	4	2	4	2	4	No. 203-B Cable Pulleys, each.....	4.20
1	2	1	2	1	2	No. 203-C Rope Pulleys, each.....	2.10
1	2	1	2	1	2	No. 203-CL Cable Clamps, each.....	.24
1	2	1	2	1	2	No. 203-D Cable Brackets, each.....	.30
*	*	*	*	*	*	No. 203-E Link Bracket with No. 96 Fusible Link attached, each.	.66
1	2	1	2	1	2	No. 203-EW Weights, per lb.....	.10
1 Pc.	2 Pcs.	1 Pc.	2 Pcs.	1 Pc.	2 Pcs.	No. 203-MW Weights, per lb.....	.10
1	1	1	1	1	1	No. 203-CA 1/2" Cable, per ft.....	.16
2	4	2	4	2	4	No. 203-91 Weight Holder, each.....	.24
1	1	1	1	1	1	No. 203 Thimbles, each.....	.12
						Package Screws and Bolts.	

### The Following Fixtures Are Used on No. 203 and No. 1203 Fixtures Only

203-2 Fixtures		203-3 Fixtures		1203 Fixtures		DESCRIPTION	List Price
4	4	4	4	2	2	No. 102-72 Bumper Shoes, each.....	\$ .12
2	2	2	2			No. 102-87 Bumpers, each.....	1.20
4, 6 or 8	4, 6 or 8	4, 6 or 8	4, 6 or 8			No. 203-A Guides, according to height of door, each.....	.60
*	*	*	*	*	*	No. 203-DW Drop Washers. (See table below), each.....	.12
2 Runs	2 Runs	2 Runs	2 Runs	2 Runs	2 Runs	No. 203-84 Track Length, equals twice height of opening plus 9", per ft.....	.48
*	*	*	*	*	*	No. 203-85-2 Track Brackets (see table below), each.....	.17
		*	*	*	*	No. 203-85-3 Track Brackets (see table below), each.....	.24
				4, 6 or 8	4, 6 or 8	No. 1203-A Guides, according to height of door.....	.60

### The Following Fixtures Are Used on No. 603 and No. 1603 Fixtures Only

603-2 Fixtures		603-3 Fixtures		1603 Fixtures		DESCRIPTION	List Price
4	4	4	4	4	4	603-A Guides.....	\$ .60
*	*	*	*	*	*	No. 603 CB-2 Center Brackets (see table below), each.....	.36
						No. 603 CB-3 Center Brackets (see table below), each.....	.36
2	2	2	2	2	2	No. 603 TB-2 Top Brackets, each.....	.36
*	*	*	*	*	*	No. 603 TB-3 Top Brackets, each.....	.36
2 Runs	2 Runs	2 Runs	2 Runs	2 Runs	2 Runs	No. 603-DW Drop Washers (see table below), each.....	.12
						No. 603 Track, length equals twice height of opening plus 4", per ft.....	.50

### Table Applying to No. 203 and No. 1203 Fixtures Only

Height of Opening	Nos. 203-85-2 and 203-85-3 Center Brackets	No. 203-DW Drop Washers	No. 102-62 Washers For Door With 1 Set Heavy Weights	No. 102-61 Washers For Doors With 2 Sets Heavy Weights
Up to 4' 10"	12	12	20	24
4' 11" to 7' 6"	16	16	24	28
7' 7" to 10' 2"	20	20	28	32
10' 3" to 12' 10"	24	24	32	36
	Fixtures only require.....		8	12

### Table Applying to No. 603 and No. 1603 Only

Height of Opening	Nos. 603 CB-2 and 603 CB-3	*No. 603-DW	No. 102-61 Washers for Doors Less Than 300 Lbs.	No. 102-61 Washers for Doors 300 Lbs. and Over
2' 10" to 3' 9"	8	10	18	22
3' 10" to 4' 9"	10	12	20	24
4' 10" to 5' 9"	12	14	22	26
5' 10" to 6' 9"	14	16	24	28
6' 10" to 7' 9"	16	18	26	30
7' 10" to 8' 9"	18	20	28	32
8' 10" to 9' 9"	20	22	30	34
9' 10" to 10' 9"	22	24	32	36
*Packed with 3-ply fixtures only.	Fixtures only require.....		8	12

Discount.....



## R-W Automatic Fire Door Fixtures

For Single Swinging Doors.

R-W No. 406-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors.

R-W No. 406-3 For Three-ply (2- $\frac{5}{8}$  inch) Tin Clad Doors.

R-W No. 1406 For "FyeR-Wall" Sheet Metal Doors.

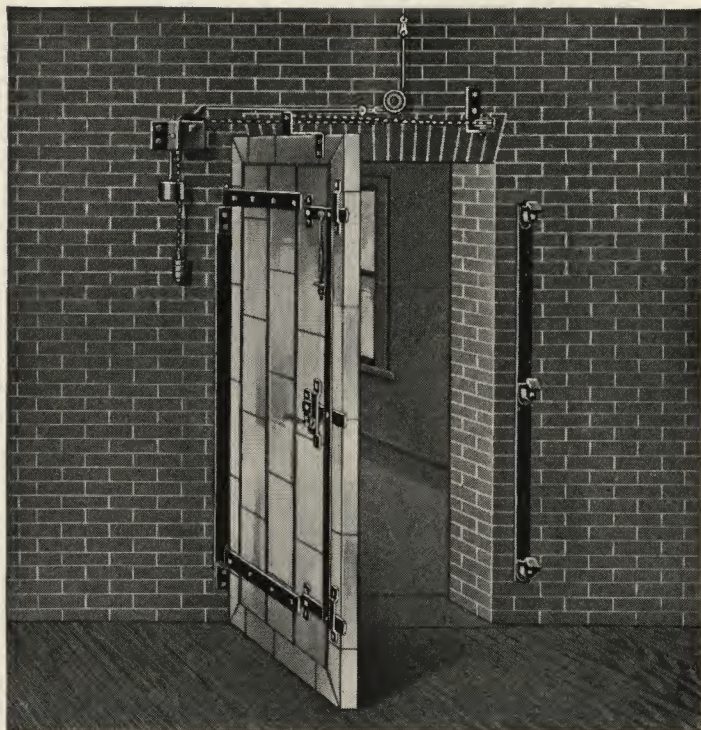


Fig. A-1874

This hardware is inspected by Underwriters' Laboratories (Inc.), under direction of the National Board of Fire Underwriters.

The automatic link and cord arrangement on this fixture extends above the opening to ceiling, and when used with doors on both sides of wall same extends through, so that the fusing of link on either side will cause the doors to close. No. 643 Door Closer and Check (page 76) may be substituted for weight closing device if desired. Fixtures furnished for either flush doors in brick rabbets, flush doors in rabbetted angle frame, flush doors in angle frame on face of wall, flush doors in channel frame or for lap doors.

If doors are used on both sides of wall, double sets of fixtures will be required and the price will be doubled. Wall bolts are not included in list prices, but will be furnished on request at moderate prices if thickness of wall is given.

### List Price for Nos. 406-2, 406-3 and 1406 Fire Door Fixtures

No. 406-2, 406-3 or 1406 Fixtures complete, for doors up to 5 ft. 9 in. high (with double latches), weight 90 lbs. Per set.....	\$20.50
No. 406-2, 406-3 or 1406 Fixtures complete, for doors 5 ft. 10 in. to 8 ft. 9 in. high (with triple latches) weight 130 lbs. Per set.....	24.00
No. 406-2, 406-3 or 1406 Fixtures complete, for doors 8 ft. 10 in. to 10 ft. 4 in. high, (with quadruple latches), weight 144 lbs. Per set....	29.00
*No. 406-2, 406-3 or 1406 Fixtures only, less automatics, deduct \$8.00 from price of Fixtures complete.	
No. 406-2, 406-3 or 1406 Automatics only, weight 30 lbs. Per set.....	10.00

Discount.....

Unless otherwise specified on order, fixtures complete will be sent for 2 $\frac{5}{8}$ -inch doors.

\*Use this price when No. 643 Door Check is used for automatically closing the doors.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall.

**Second**—Width and height of opening (mention width first). Do not say doors when you mean openings.

**Third**—Are doors to lap the wall; to be mounted in angle iron frame on the face of the wall, in channel frames or are doors to be mounted in rabbetted frames or in brick rabbets? See illustration of various types at the bottom of page 313.

**Fourth**—Thickness of doors, if two-ply tin clad (1 $\frac{3}{4}$  inch), three-ply tin clad (2 $\frac{5}{8}$  inch) or "FyeR-Wall" sheet metal doors.

**Fifth**—Thickness of wall when wall bolts are required.

**Sixth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest obstructions overhead.

**Seventh**—Is opening square or arched top?

This fixture requires 9 inches of headroom above top of door, (not openings), 11 inches of side wall space beyond door on hinge side and 4 inches on latch side. Detail of parts shown on pages 308 and 309 See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad and R-W "FyeR-Wall" Sheet Metal Doors. Approved hardware suitable for Merchant and Evans Doors furnished when required. Metal frames for flush doors shown on pages 266 to 268



## R-W Automatic Fire Door Fixtures For Single Swinging Doors

No. 1406  
Fire Door  
Hardware

Description  
and Prices  
on Opposite  
Page



Fig. A-1875

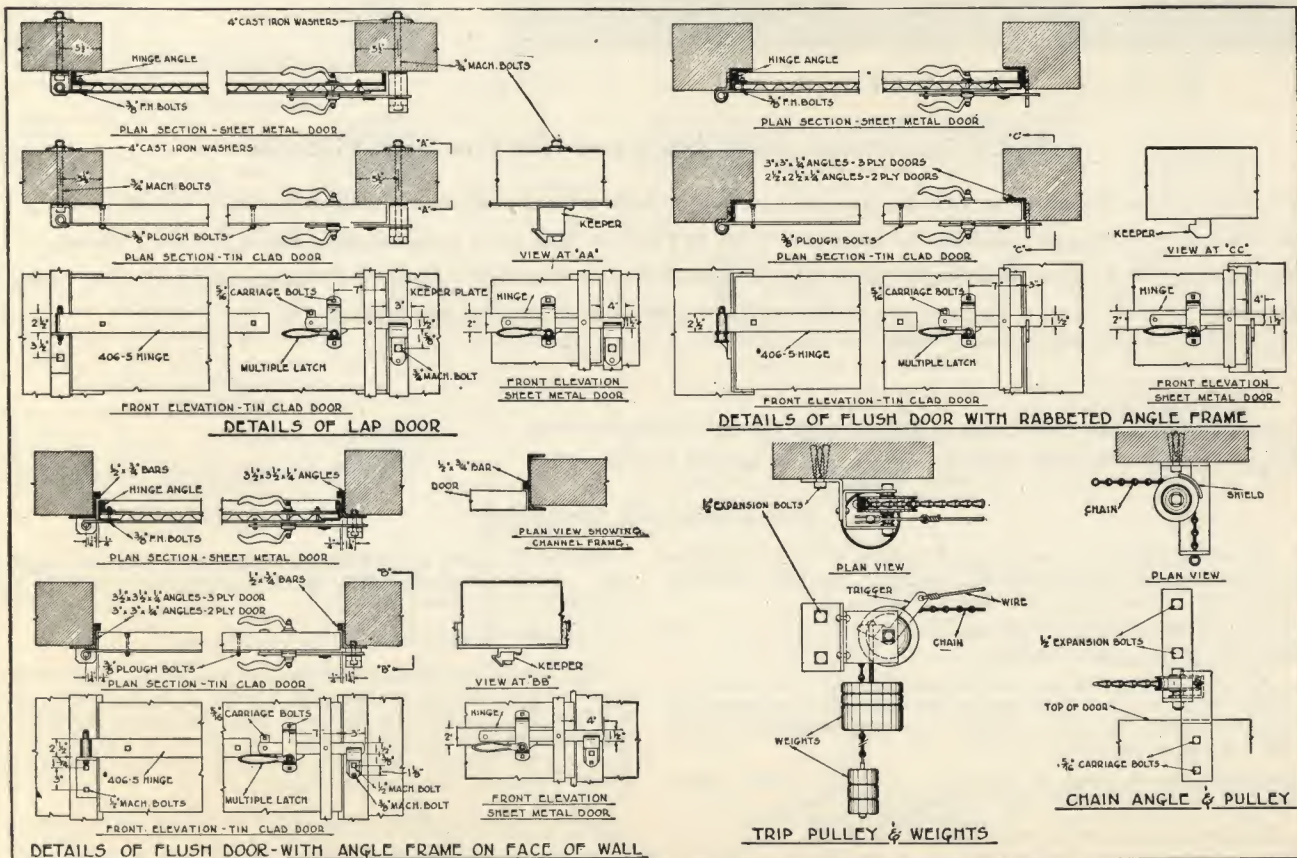


Fig. A-1876—Showing various types of mountings for doors with 406 and 1406 Hardware

Feel free to call upon our Engineering Service Department for suggestions



## R-W Automatic Fire Door Fixtures for Swinging Doors in Pairs

R-W No. 506-2 For Two-ply (1-3/4 inch) Tin Clad Doors.

R-W No. 506-3 For Three-ply (2-5/8 inch) Tin Clad Doors.

R-W No. 1506 For "FyeR-Wall" Sheet Metal Doors.

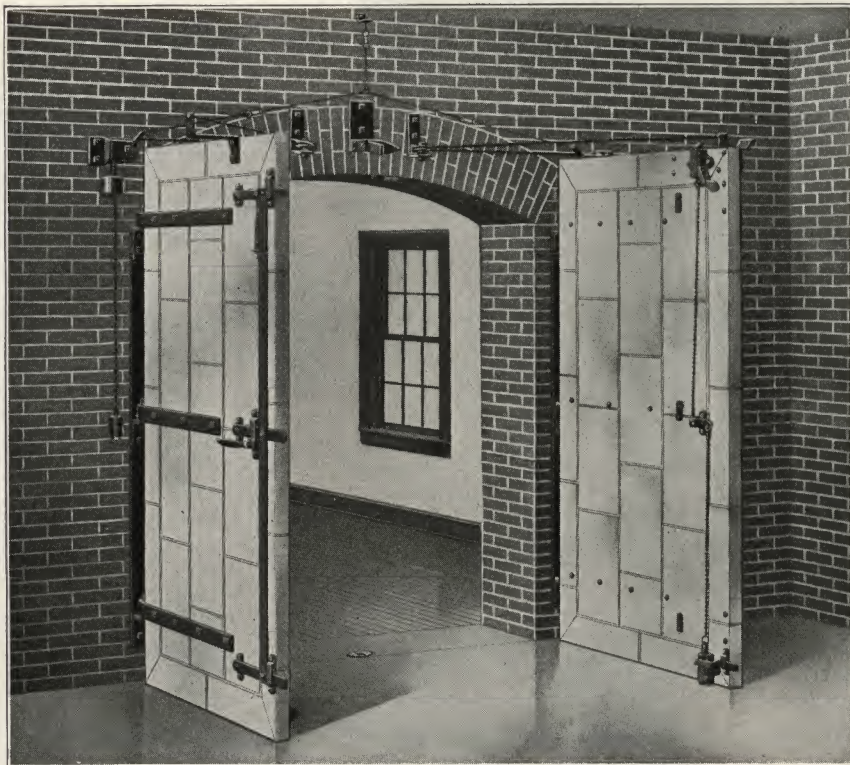


Fig. A-1877

This hardware is inspected by Underwriters' Laboratories, (Inc.), under direction of the National Board of Fire Underwriters.

The automatic link and cord arrangement of this fixture extends above the opening to ceiling, and when used with doors on both sides of wall same extends through, so that the fusing of link on either side will cause the doors to close. No. 643 Door Closer and Check (page 76) may be substituted for weight closing device if desired.

Fixtures furnished for; flush doors in brick rabbets; flush doors in rabbetted angle frame; flush doors in angle frame on face of wall; flush doors in channel frame; or for lap doors. If doors are used on both sides of wall, double sets are required and the price will be doubled. Wall bolts are not included in list prices, but will be furnished on request, at moderate prices if thickness of wall is given.

### List Price for Nos. 506-2, 506-3 and 1506 Fire Door Fixtures

Nos. 506-2, 506-3 or 1506 Fixtures complete, for doors up to 5 ft. 9 in. high (with double latches) weight 166 lbs.	Per set.....	\$42.00
Nos. 506-2, 506-3 or 1506 Fixtures complete, for doors 5 ft. 10 in. to 8 ft. 9 in. high (with triple latches), weight 220 lbs.	Per set.....	47.00
Nos. 506-2, 506-3 or 1506 Fixtures complete, for doors 8 ft. 10 in. to 10 ft. 4 in. high (with quadruple latches), weight 275 lbs.	Per set..	53.00
*Nos. 506-2, 506-3 or 1506 Fixtures, less automatics, deduct \$18.00 from price of complete sets listed above.		
Nos. 506-2, 506-3 or 1506 Automatics only. weight 64 lbs.	Per set.....	21.50

Discount.....

\*Use this price when No. 643 Door Check is used for automatically closing the door.

Unless otherwise specified on order, fixtures complete will be sent for 2 5/8" doors.

### Directions for Ordering

**State: First**—Number of openings and number of doors; whether doors are on one side or both sides of wall. If latter, mention if fixtures can be bolted together and state thickness of wall.

**Second**—Width and height of opening (mention width first). Do not say doors when you mean openings.

**Third**—Are doors to lap wall; to be mounted in angle iron frame on the face of the wall, in channel frames or are doors to be mounted in rabbetted angle frames or in brick rabbetts. (See illustrations of various types at the bottom of page 313).

**Fourth**—Thickness of doors, if two-ply tin clad (1 3/4 inch), three-ply tin clad (2 5/8 inch) or "FyeR-Wall" Sheet Metal Doors.

**Fifth**—Thickness of wall when wall bolts are required.

**Sixth**—Distance from edge of opening to walls at right angles, if any. State distances from highest points of openings to nearest obstructions overhead.

**Seventh**—Is opening square or arched top?

This fixture requires 10 inches of headroom above top of door, (not opening), 11 inches of side wall space on each side of door. Detail of parts shown on pages 308 and 309. See pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad and R-W "FyeR-Wall" Sheet Metal Doors. Approved hardware suitable for Merchant and Evans Doors furnished when required.

Metal frames for flush doors shown on pages 266 to 268.



## R-W Automatic Fire Door Fixtures—For Swinging Doors in Pairs

No. 1506  
Fire Door  
Hardware



Description  
and Prices  
on Opposite  
Page

Fig. A-1878

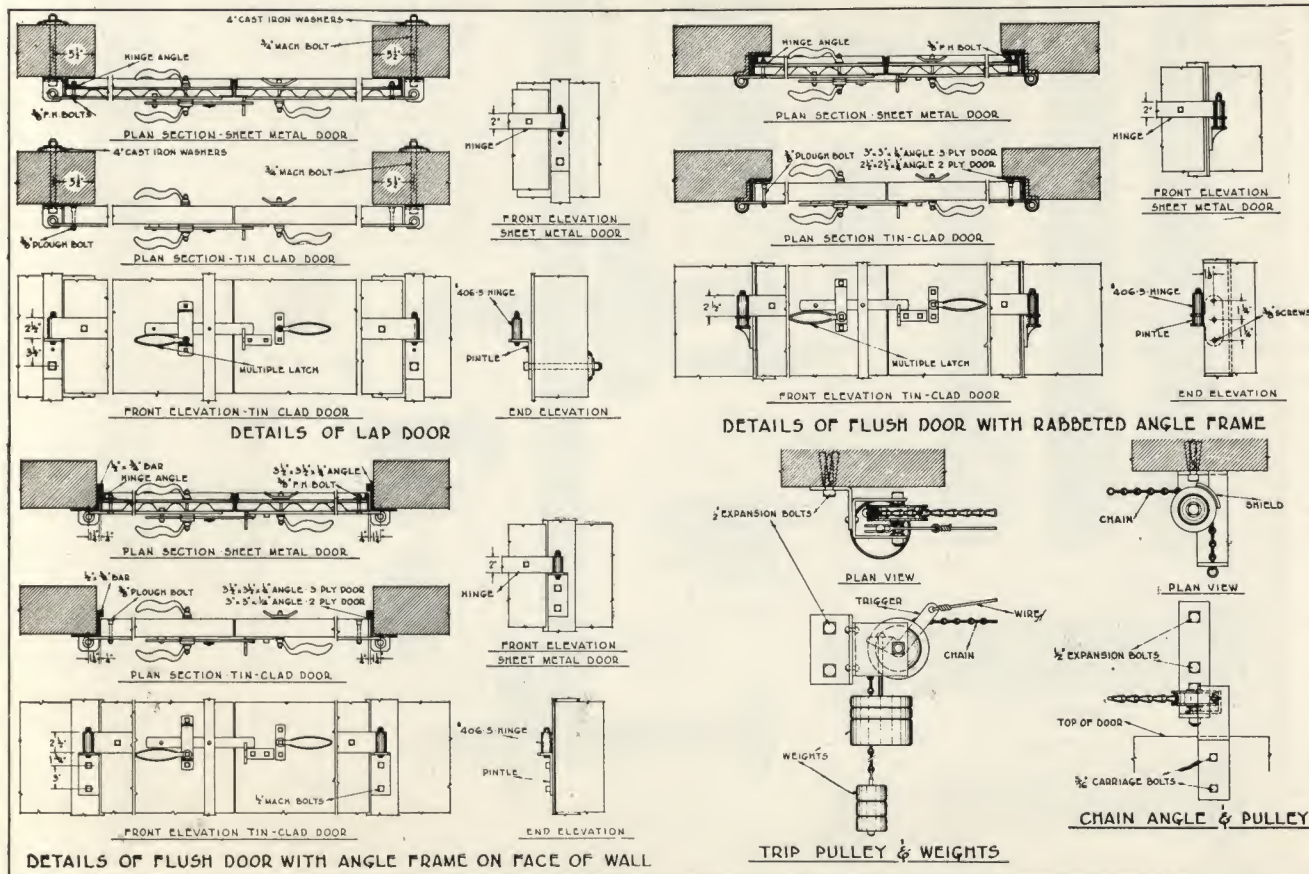


Fig. A-1879—Showing various styles of door mounting for 506 and 1506 Hardware

*You should have our Fire Door Catalog. It is very complete*



## Parts for Nos. 406, 1406, 506 and 1506 Fixtures

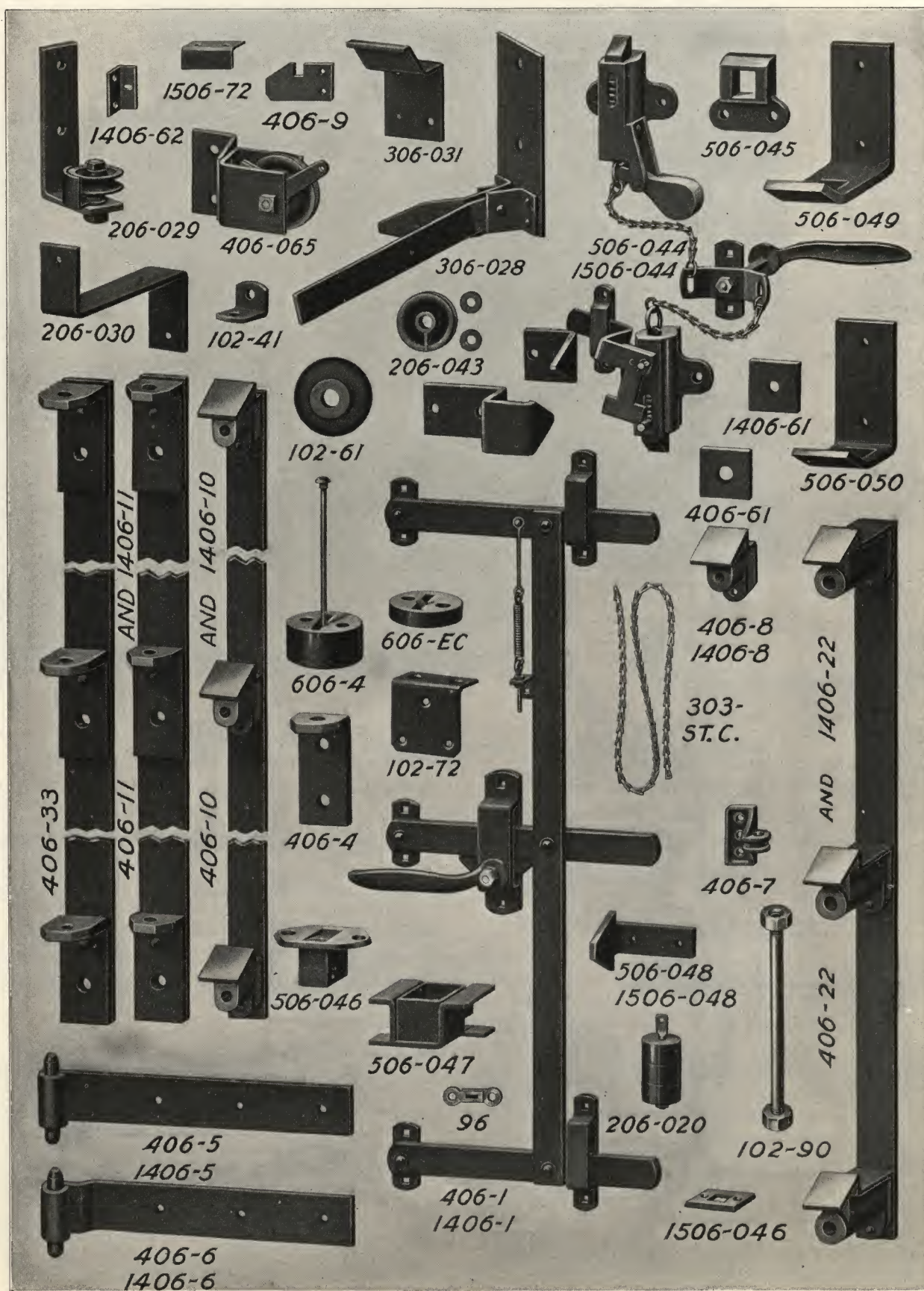


Fig.  
A-1880



# Richards-Wilcox

## List Price and Packing List of Parts Used on Nos. 406, 506, 1406 and 1506 Fire Door Fixtures

406-2	406-3	1406	506-2	506-3	1506	No.	DESCRIPTION	List Price
2	2	2	3	3	3	96	Fusible Links, each	\$0.30
1	1	1	1	1	1	102-41	Rope, Angle, each	.18
*	*	*	*	*	*	102-61	Cast Washers (as required). Packed only with lap door fixtures ea.	.18
			1	1		102-72	Bumper Shoe, each	.12
1	1	1	1	1	1	102-90	Chain Tube (only when fixtures are used on both sides of wall), ea.	.75
1	1	1	2	2	2	206-020	Weight (3 small) with weight holder, each	.36
1	1	1	2	2	2	206-029	Chain Pulley, each	1.80
1	1	1	2	2	2	206-030	Chain Angle, each	.30
1	1	1				206-043	Center Pulley, each	.30
1	1	1	1	1	1	303-ST	C. Sash Chain, per ft.	.12
..	..	..	1	1	1	306-028	Door Control, each	1.80
..	..	..	1	1	1	306-031	Door Control Lifter, each	.30
1	1	1	2	2	2	406-065	Pulley & Trip Complete.	2.40
One Multiple Latch furnished with each set of fixtures, Double, Triple or Quadruple, according to height of door.								
1	..	..	1	..	..	406-1-2	Double Latch (Latch Bars 30" or 42" centers as required), each	4.80
..	1	..	..	1	..	406-1-3	Double Latch (Latch Bars 30" or 42" centers as required), each	4.80
..	..	1	..	..	1	1406-1	Double Latch (Latch Bars 36" centers), each	4.80
Doors from 5' 10" to 8' 9" high require triple latches.								
1	..	..	1	..	..	406-1-2	Triple Latch (Latch Bars 27", 33" or 39" centers as required), each	6.00
..	1	..	..	1	..	406-1-3	Triple Latch (Latch Bars 27", 33" or 39" centers as required), each	6.00
..	..	1	..	..	1	1406-1	Triple Latch (Latch Bars 24", 30" or 36" centers as required), each	6.00
Doors from 8' 10" to 10' 4" high require quadruple latches								
1	..	..	1	..	..	406-1-2	Quadruple Latch (Latch Bars 30" or 34" centers as required), each	7.20
..	1	..	..	1	..	406-1-3	Quadruple Latch (Latch Bars 30" or 34" centers as required), each	7.20
..	..	1	..	..	1	1406-1	Quadruple Latch (Latch Bars 28" or 32" centers as required), each	7.20
*	*	*	*	*	*	406-4	Pintels for Flush Doors in angle iron frames on the face of the wall or channel frames, per pair	1.80
*	*	..	*	*	..	406-5	†Hinge Straps as required, per pair. (See note)	..
*	*	..	*	*	..	406-6	†Hinge straps as required, per pair (see note) doors in brick rabbets	..
..	..	*	..	..	*	1406-6	†Hinge straps as required, per pair (see note) doors in brick rabbets	..
*	*	..	..	..	*	406-7	Pintels for Flush Doors in rabbetted frames, pr.	1.80
..	..	..	..	..	..	406-8	Keepers for Flush Doors with angle iron frames on the face of the wall or channel frames, each	.60
..	..	*	..	..	..	406-9	Keepers for Flush Doors in rabbetted frames only, each	.48
..	..	..	..	..	..	1406-8	Keepers for Flush Doors with angle iron frames on the face of the wall or channel frames only, each	.60
1	1	..	..	..	..	406-10	Double keepers, 30" or 42" centers, each, for doors in brick rabbets	2.40
1	1	..	..	..	..	406-10	Triple keepers, 27", 33" or 39" centers, each, for doors in brick rabbets	3.00
..	..	1	..	..	..	406-10	Quadruple keepers, 30" or 34" centers, each, for doors in brick rabbets	3.60
..	..	1	..	..	..	1406-10	Double keeper, 36" centers, each, for doors in brick rabbets	2.40
..	..	1	..	..	..	1406-10	Triple keeper, 24", 30" or 36" centers, each, for doors in brick rabbets	3.00
..	..	..	..	..	..	1406-10	Quadruple keepers, 28" or 32" centers, each for doors in brick rabbets	3.60
..	..	..	*	*	*	506-048	Keepers for Double, Triple or Quadruple Latch	.60
..	..	..	..	..	..	1506-048	Keepers for Double, Triple or Quadruple Latch	.60
One Multiple Keeper furnished with each set of fixtures for lap doors. Double, Triple or Quadruple according to height of opening. Doors up to 5' 9" require double Keepers.								
1	..	..	..	..	..	406-22-2	Double Latch Keeper for Lap Door only, 30" or 42" centers as required, each	2.40
..	1	..	..	..	..	406-22-3	Double Latch Keeper for Lap Door only, 30" or 42" centers as required, each	2.40
..	..	1	..	..	..	1406-22	Double Latch Keeper for Lap Door only, 36" centers, each	2.40
Doors from 5' 10" to 8' 9" high require Triple Keepers.								
1	..	..	..	..	..	406-22-2	Triple Latch Keeper for Lap Door only, 27", 33" or 39" centers as required, each	3.00
..	1	..	..	..	..	406-22-3	Triple Latch Keeper for Lap Door only, 27", 33" or 39" centers as required, each	3.00
..	..	1	..	..	..	1406-22	Triple Latch Keeper for Lap Door only, 24", 30" or 36" centers as required, each	3.00
Doors from 8' 10" to 10' 4" require quadruple Keepers.								
1	..	..	..	..	..	406-22-2	Quadruple Latch Keeper 30" or 34" centers as required, each	3.60
..	1	..	..	..	..	406-22-3	Quadruple Latch Keeper 30" or 34" centers as required, each	3.60
..	..	1	..	..	..	1406-22	Quadruple Latch Keeper 28" or 32" centers as required, each	3.60
1	1	1	2	2	2	1406-5	†Hinge Straps as required, pe. pair. (See note)	..
1	1	1	2	2	2	406-11	Double pintels, 36", 48" or 60" centers, each, for doors in brick rabbets, each	2.40
1	1	1	2	2	2	406-11	Triple pintels, 18", 24", 30", 36" or 42" centers, each, for doors in brick rabbets, each	3.60
1	1	1	2	2	2	406-11	Quadruple pintels, 28" or 32" centers, each, for doors in brick rabbets, each	4.80
1	..	..	2	..	..	406-33-2	Double Pintels for Lap Doors only 36", 48" or 60" centers as required, each	2.40
..	1	1	..	2	2	406-33-3	Double Pintels for Lap Doors only 36", 48" or 60" centers as required, each	2.40
1	..	..	2	..	..	406-33-2	Triple Pintels for Lap Doors only 18", 24", 30", 36" or 42" centers as required, each	3.60
..	1	1	..	2	2	406-33-3	Triple Pintels for Lap Door only 18", 24", 30", 36" or 42" as required, each	3.60
1	..	..	2	..	..	406-33-2	Quadruple Pintels (as above) 28" or 32" centers as required, each	4.80
..	1	1	..	2	2	406-33-3	Quadruple Pintels (as above) 28" or 32" centers as required, each	4.80
..	..	*	..	..	*	1406-61	Hinge Washer (one for each hinge), each	.12
..	..	*	..	..	*	1406-62	Hinge Angle (one for each hinge), each	.36
..	..	..	..	..	1	1506-72	Bumper Shoe, each	.48
..	..	..	1	..	..	506-044-2	Top & Bottom Bolt for standing door, each	4.20
..	..	..	..	1	..	506-044-3	Top & Bottom Bolt for standing door, each	4.20
..	..	..	1	1	1	1506-044	Top & Bottom Bolt for standing door, each	5.40
..	..	..	1	1	1	506-045	Keeper for top standing door bolt, (partition walls only), each	.60
..	..	..	1	1	1	506-046	Keeper for bottom standing door bolt, each	1.20
..	..	..	1	1	1	1506-046	Keeper for bottom standing door bolt, each	.60
..	..	..	..	..	..	506-047	Sill Box for No. 506-046 Keeper (only when concrete sills are used), each	.60
..	..	..	1	..	..	506-049-2	Keeper for top standing door bolt, for outside doors only, each	.60
..	..	..	..	1	1	506-049-3	Keeper for top standing door bolt (Lap doors on outside walls only), each	.60
..	..	..	1	1	1	506-050	Keeper for top standing door bolt (Flush doors on outside wall only), each	.60
1	1	1	2	2	2	606-4	Weight, each	.72
1	2	2	2	4	4	606-E C	Extra Weight, each	.24
1	1	1	1	1	1		Package Screws and Bolts	..

\*Indicates quantity as required. †Quantity and length of hinges and pintels depends upon width and height of door. 406-5—up to 18" \$1.30; 21-24" \$1.70; 27-30" \$2.00; 33-36" \$2.40; 39-42" \$2.75; 45-48" \$3.10. 1406-5—up to 18" \$1.75; 21-24" \$2.25; 27-30" \$2.75; 33-36" \$3.20; 39-42" \$3.70; 45-48" \$4.15

Discount

Fire confined to one room can often be quickly put out



## R-W Automatic Fire Door Fixtures

For Single Swinging Doors

R-W No. 206-2 For Two-ply (1- $\frac{3}{4}$  inch) Tin Clad Doors.

R-W No. 206-3 For Three-ply (2- $\frac{5}{8}$  inch) Tin Clad Doors.

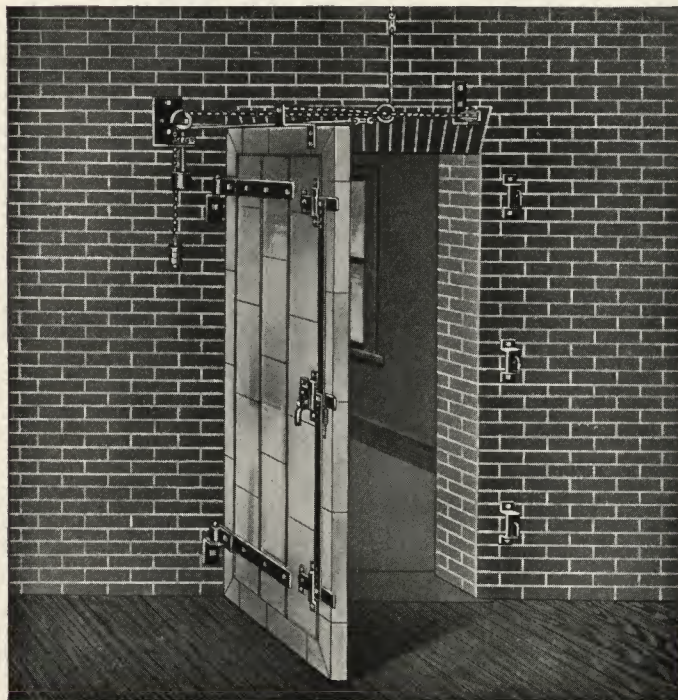


Fig. A-1881

This swing door hardware is designed to meet the demand for a less expensive outfit than the approved Labeled No. 406 Fixture illustrated on page 304.

The fixture will meet the requirements of Underwriters in certain territories.

The automatic link and cord arrangement on this fixture extends above the opening to ceiling and when used with doors on both sides of wall, same extends through so that the fusing of link on either side will cause the doors to close. When link fuses at 160 degrees Fahrenheit it releases the heavy weight, which drops onto the small weight and closes the door. The small weight merely maintains tension of chain. No. 643 Door Closer and Check (page 76) may be substituted for weight closing device if desired. Fixtures furnished for either flush or lap doors.

The following list price includes a set of fixtures complete with bolts (except pintle and keeper bolts) for attaching hardware and heavy cast washers for wall bolts.

Wall bolts will be furnished on request at a moderate price if thickness of wall is given.

### List Price

No. 206-2 or 206-3 Fixtures complete, for doors up to 7 ft. 3 in. high (with 2 hinges), weight 75 lbs. Per set.....	\$20.00
No. 206-2 or 206-3 Fixtures complete, for doors 7 ft. 4 in. to 8 ft. 3 in. high (with 3 hinges), weight 85 lbs. Per set.....	21.00
No. 206-2 or 206-3 Fixtures complete, for doors 8 ft. 4 in. to 10 ft. 4 in. high (with 4 hinges), weight 95 lbs. Per set.....	23.00
*No. 206-2 or 206-3 Fixtures, less automatics, deduct \$7.75 from price of complete sets listed above.	
No. 206-2 or 206-3 Automatics only, weight 34 lbs. Per set.....	9.50
*Use this price when No. 643 Door Check is used for automatically closing the doors.	

Discount.....

This fixture requires 9 inches of headroom above top of door, 10 inches of side wall space beyond door on hinge side and 3 $\frac{1}{2}$  inches on latch side.

Frames for flush doors shown on pages 266 to 268. Detail of parts shown on Page 312. See pages 256-257 for R-W Standard Approved and Labeled Tin Clad Fire Doors.

### Directions for Ordering

See page 304 and give all information asked for.

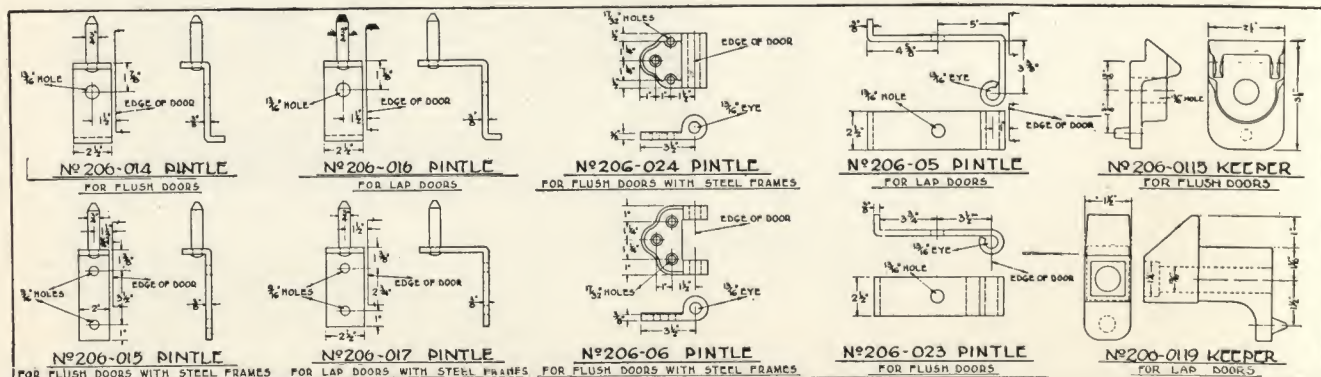


Fig. A-1882—Types of frames shown on page 313



## R-W Automatic Fire Door Fixtures

For Swinging Doors in Pairs

R-W No. 306-2, For Two-ply (1-3/4 inch) Tin Clad Doors.

R-W No. 306-3, For Three-ply (2-5/8 inch) Tin Clad Doors.

This swing door hardware is designed to meet the demand for a less expensive outfit than the Approved Labeled No. 506 illustrated on pages 306-307.

The fixture will meet the requirements of Underwriters in certain territories.

The automatic link and cord arrangement on this fixture operates in the same manner as No. 206, illustrated on opposite page. When link fuses at 160 degrees Fahrenheit it released the heavy weight, which drops onto the small weight and closes the door. The small weight merely maintains tension of chain. No. 643 Door Closer and Check (page 76) may be substituted for weight closing device if desired. The fixtures are so constructed that it is impossible for the wrong door to close first. Fixtures furnished for either flush or lap doors.

The following list price includes a set of fixtures complete with bolts (except pintle and keeper bolts), for attaching hardware and heavy cast washers for wall bolts.

Wall bolts will be furnished on request at a moderate price if thickness of wall is given.



Fig. A-1883

### List Price

No. 306-2 or 306-3 Fixtures complete for doors up to 7 ft. 3 in. high (with 4 hinges) weight 165 lbs.	Per set.....	\$35.00
No. 306-2 or 306-3 Fixtures complete, for doors 7 ft 4 in. to 8 ft. 3 in. high (with 6 hinges), weight, 185 lbs.	Per set.....	38.00
No. 306-2 or 306-3 Fixtures complete, for doors 8 ft. 4 in. to 10 ft. 4 in high, (with 8 hinges), weight 205 lbs.	Per set.....	42.00
*No. 306-2 or 306-3 Fixtures, less automatics, deduct \$18.00 from price of complete sets listed above.		
No. 306-2 or 306-3 Automatics only, weight 78 lbs.	Per set.....	22.00

\*Use this price when No. 643 Door Check is used for automatically closing the doors.

### Discount

This fixture requires 10 inches of headroom above top of door and 10 inches of side wall space on each side of door. Frames for flush doors shown on pages 266 to 268. Detail of parts shown on page 312. See pages 256-257 for R-W Standard Approved and Labeled Tin Clad Fire Doors.

### Directions for Ordering

See page 304 and give all information asked for.

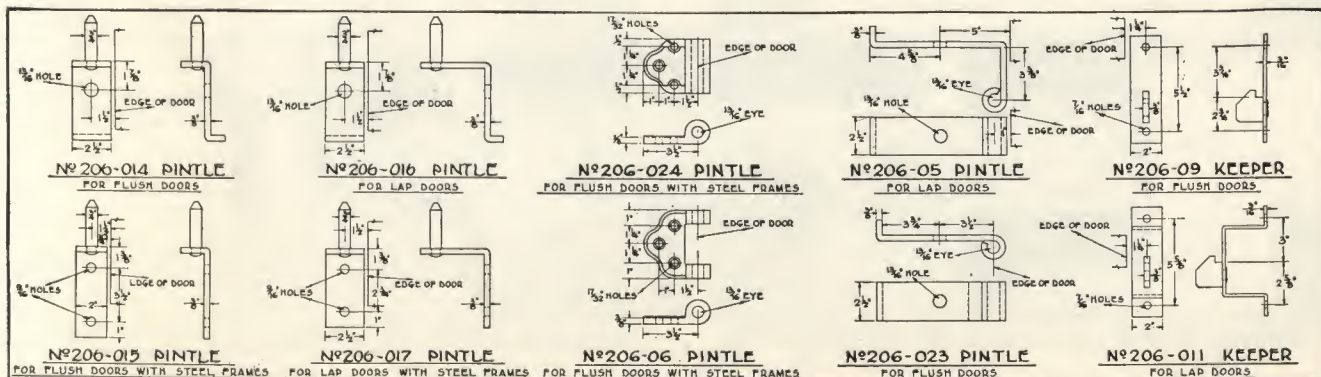


Fig. A-1884—Types of frames shown on page 313.



## Details of Parts for Nos. 206 and 306 Swing Fire Door Fixtures

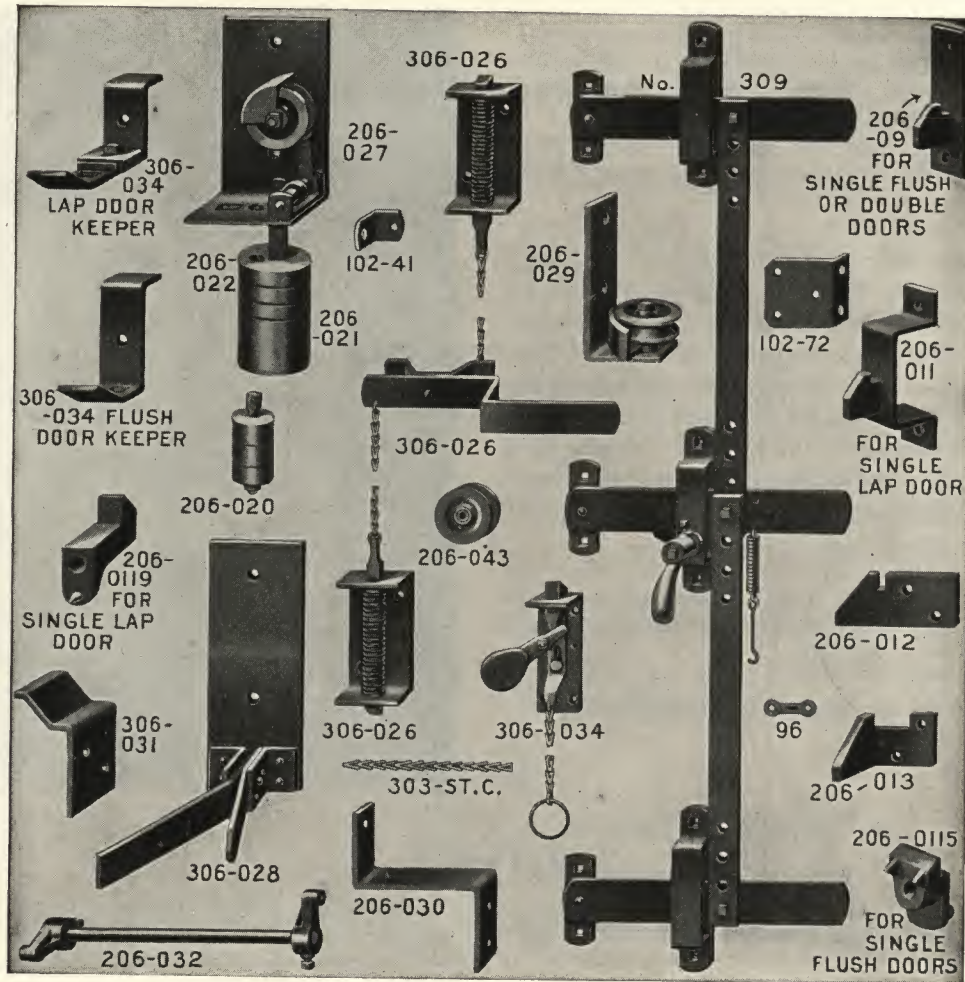


Fig. A-1885

## Detail of Pintles and Hinge for Swing Fixtures

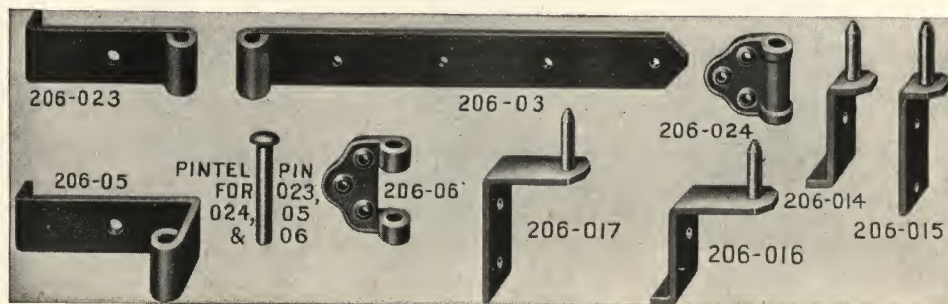


Fig. A-1886



## Packing List and List Price of Parts Used on Nos. 206 and 306 Swing Fire Door Fixtures

206-2	206-3	306-2	306-3	Description	List Price
2	2	3	3	No. 96 Fusible Link, each	\$.30
1	1	1	1	No. 102-41 Rope Angle, each	.18
*	*	*	*	No. 102-61 4" diameter Cast Washers, each	.18
*	*	1	1	No. 102-72 Bumper Shoe, each	.12
*	*	*	*	†No. 206-09 Latch Keeper (single flush doors in angle iron frames on the face of the wall or channel frames and doors in pairs), each	.35
*	*	..	..	§No. 206-11-2 Latch Keeper (single lap doors), each	.72
*	*	..	..	§No. 206-11-3 Latch Keeper (single lap doors), each	.72
*	*	..	..	†No. 206-012 Latch Keeper (single flush doors, in rabbetted frame only), each	.48
*	*	..	..	†No. 206-013 Latch Keeper (single flush doors in angle iron frames on the face of the wall or channel frames), Made right and left, each	.48
1	1	2	2	No. 206-020 Weight (3 small) with weight holder, each	.36
1	1	2	2	No. 206-021 Master Weight, 7 pounds, each	.90
1	2	2	4	No. 206-022 Extra Weight, 2 pounds, each	.24
1	1	2	2	No. 206-027 Pulley and Trip, complete	1.80
1	1	2	2	No. 206-029 Chain Pulley, each	1.80
1	1	2	2	No. 206-030 Chain Angle, each	.30
1	1	1	1	No. 206-032 Shaft and Cranks, only used when doors are on both sides of wall, each	.72
1	1	..	..	No. 206-043 Center Pulley with Bushing, each	.30
*	*	..	..	†No. 206-0115 Latch Keeper (single flush or double doors), each	.18
*	*	..	..	§No. 206-0119-2 Latch Keeper for two-ply (1 3/4") single lap doors, each	.24
1 pc.	1 pc.	1 pc.	1 pc.	§No. 206-0119-3 Latch Keeper for three-ply (2 3/4") single lap doors, each	.24
..	..	1	1	No. 303-ST Steel Sash Chain, per foot	.12
..	..	1	1	No. 306-026 Inside Latch (for standing door), complete, each	3.00
..	..	1	1	No. 306-028 Door Control, each	1.80
..	..	1	1	No. 306-031 Door Control Lifter, each	.30
..	..	1	1	No. 306-034 Top and Bottom Latch (with flush or lap door keepers) complete, (Furnished only as a substitute for No. 306-026 when so ordered), each	3.00
1	1	1	1	No. 309 Triple Latch (with flush or lap door keepers), complete, each	6.00
				Specify style of Keepers wanted. Connecting Bars made in five lengths, i. e.	
				24" adjustable for doors 4' 3" to 6' high.	
				30" adjustable for doors 5' 6" to 7' high.	
				36" adjustable for doors 6' 6" to 8' high.	
				42" adjustable for doors 7' 6" to 9' high.	
				48" adjustable for doors 8' 6" to 10' high.	
*	*	..	..	Two connecting bars are furnished with each latch.	
1	1	1	1	No. 649-220C 2 1/2" diameter Cast Washers used only with 206-0115 and 206-0119 Keepers, each	.12
				Package of Screws and Bolts.	

### Detail of Pintles and Hinges for Nos. 206 and 306 Swing Fire Door Fixtures. Illustrated on Opposite Page.

Underwriters require hinges to cover three-fourths the width of door. All hinge straps are made of 2 1/2 x 3/8 inch steel. Doors up to 7' 3" high require 2 hinges; 7' 4" to 8' 3" high require 3 hinges, and doors 8' 4" to 10' 4" high require 4 hinges.

No. 206-03 Hinge Straps, 12", per pair	\$1.20
No. 206-03 Hinge Straps, 15", per pair	1.20
No. 206-03 Hinge Straps, 18", per pair	1.20
No. 206-03 Hinge Straps, 21", per pair	1.45
No. 206-03 Hinge Straps, 24", per pair	1.80
No. 206-03 Hinge Straps, 30", per pair	1.80
No. 206-03 Hinge Straps, 36", per pair	2.15
No. 206-03 Hinge Straps, 42", per pair	2.50
No. 206-03 Hinge Straps, 48", per pair	2.90
No. 206-05-2 Hinge Pintles with pintle pins (for two-ply lap doors only), per pair	1.45
No. 206-05-3 Hinge Pintles with pintle pins (for three-ply lap doors only), per pair	1.45
No. 206-06 Hinge Pintles with pintle pins (flush doors, angle iron frames), per pair	1.45
No. 206-014 Hinge Pintles (Flush doors, masonry walls), per pair	1.20
No. 206-015 Hinge Pintles for flush doors with angle iron or channel iron frames, per pair	1.20
No. 206-016-2 Hinge Pintles for two-ply (1 3/4") lap doors, masonry walls, per pair	1.50
No. 206-016-3 Hinge Pintles for three-ply (2 3/4") lap doors, masonry walls, per pair	1.50
No. 206-017-2 Hinge Pintles for two-ply (1 3/4") lap doors with angle iron or channel iron frames, per pair	1.50
No. 206-017-3 Hinge Pintles for three-ply (2 3/4") lap doors with angle iron or channel iron frames, per pair	1.50
No. 206-023 Hinge Pintles with pintle pins (flush doors) per pair	1.45
No. 206-024 Hinge Pintles with pintle pins (flush doors), angle iron frames, per pair	2.15

\*Quantity as required.

§Unless otherwise specified No. 206-011 will be furnished for lap doors.

†Unless otherwise specified No. 206-09 will be furnished for flush doors.

Discount.....

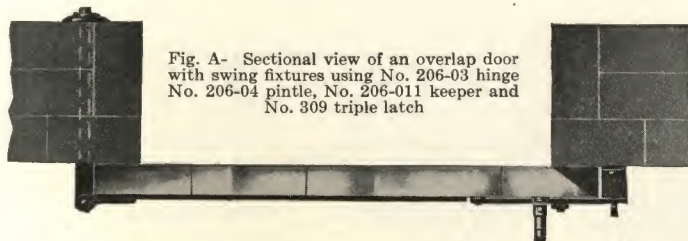


Fig. A- Sectional view of an overlap door with swing fixtures using No. 206-03 hinge, No. 206-04 pintle, No. 206-011 keeper and No. 309 triple latch

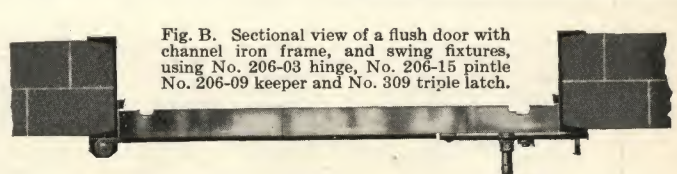


Fig. B. Sectional view of a flush door with channel iron frame, and swing fixtures, using No. 206-03 hinge, No. 206-15 pintle, No. 206-09 keeper and No. 309 triple latch.

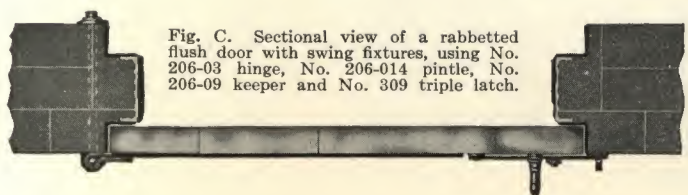


Fig. C. Sectional view of a rabbetted flush door with swing fixtures, using No. 206-03 hinge, No. 206-014 pintle, No. 206-09 keeper and No. 309 triple latch.

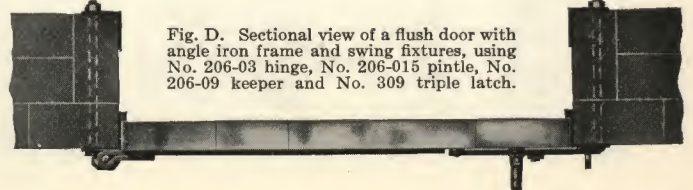


Fig. D. Sectional view of a flush door with angle iron frame and swing fixtures, using No. 206-03 hinge, No. 206-015 pintle, No. 206-09 keeper and No. 309 triple latch.



## R-W Automatic Fire Door Fixtures

For Single Swinging Doors

R-W No. 606-2 For Two-ply (1-3/4 inch) Tin Clad Doors.

R-W No. 606-3 For Three-ply (2-5/8 inch) Tin Clad Doors.

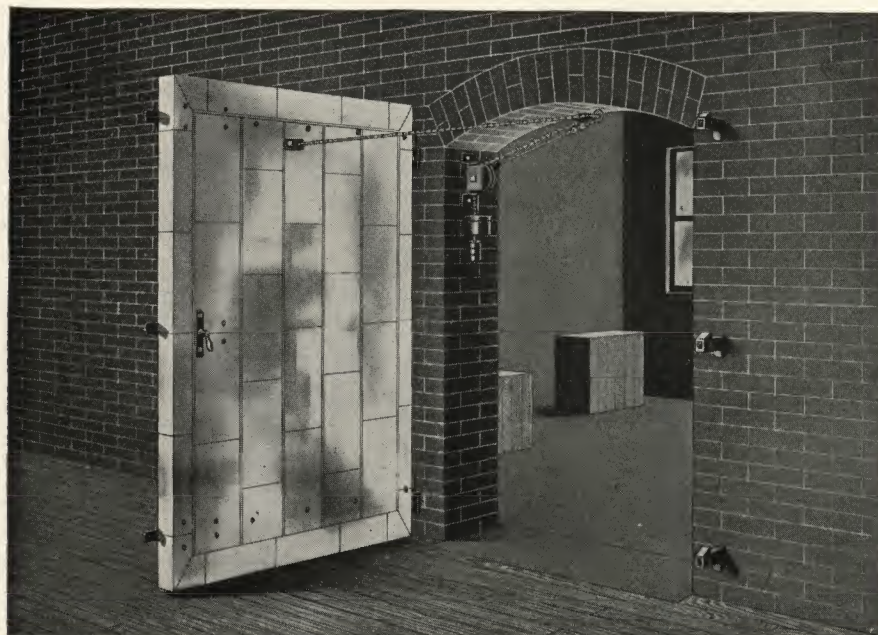


Fig. A-1887

This swing door hardware is designed to meet the demand for an inexpensive outfit and will meet the requirements of Underwriters in certain territories.

This fixture is particularly adaptable where conditions do not permit the attaching of pulleys on the wall on account of insufficient headroom and lack of space between door and adjoining wall. When link fuses at 160 degrees Fahrenheit it releases the heavy weight, which drops onto the small weight and closes the door. The small weight merely maintains tension of chain. No. 643 Door Closer and Check (page 76) may be substituted for weight closing device if desired.

To conform strictly to Underwriters' requirements, triple bar latch is always furnished.

Single bar latch can be furnished on application. Fixtures furnished for either flush or lap doors.

The following list price includes a set of fixtures complete, with bolts (except pintle and keeper bolts), for attaching hardware and heavy washers for wall bolts.

Wall bolts will be furnished on request at a moderate price if thickness of wall is given.

### List Price

- \*No. 606-2 or 606-3 Fixtures complete for doors up to 7 ft. 3 in. high (with 2 hinges), weight 70 lbs. Per set.....\$14.00
- \*No. 606-2 or 606-3 Fixtures complete for doors 7 ft. 4 in. to 8 ft. 3 in. high (with 3 hinges), weight 80 lbs. Per set..... 17.00
- \*No. 606-2 or 606-3 Fixtures complete for doors 8 ft. 4 in. to 10 ft. 4 in. high (with 4 hinges), weight 90 lbs. Per set..... 19.00
- †\*No. 606-2 or 606-3 Fixtures, less automatics, deduct \$4.00 from price of complete sets listed above.
- No. 606-2 or 606-3 Automatics only, weight 26 lbs. Per set..... 5.00
- \*If single bar latch is desired instead of triple latch, deduct \$4.00 from list prices above.
- †Use this price when No. 643 Door Check is used for automatically closing the doors.

Discount.....

### Directions For Ordering

Give all information asked for on page 304. Types of frames shown on page 313.

This fixture requires no headroom above top of door and only 3 1/2 inches of side wall space on each side of door.

Detail of parts shown on page 316. See pages 256-257 for R-W Standard Approved and Labeled Tin Clad Fire Doors.

Frames for flush doors are shown on pages 266 to 268.

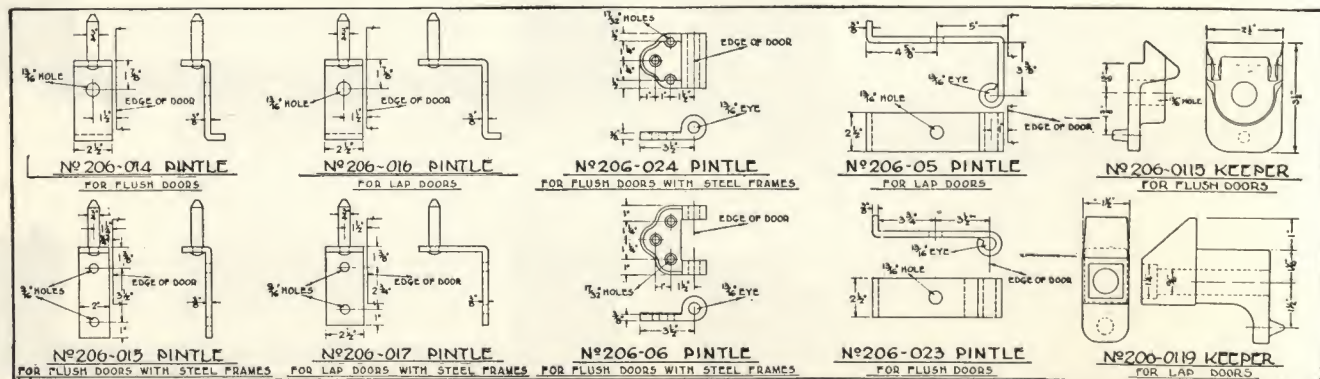


Fig. A-1888



## R-W Automatic Fire Door Fixtures

For Swinging Doors in Pairs

R-W No. 706-2 For Two-ply (1-3/4 inch) Tin Clad Doors.

R-W No. 706-3 For Three-ply (2-5/8 inch) Tin Clad Doors.

This swing door hardware is designed to meet the demand for an inexpensive outfit and will meet the requirements of Underwriters in certain territories.

This fixture is particularly adaptable where conditions do not permit the attaching of pulleys on the wall on account of insufficient headroom and lack of space between door and adjoining wall. The automatic link and cord arrangement is the same as No. 606 illustrated on opposite page, excepting that it is for double doors. Fixture is so constructed that it is impossible for the wrong door to close first. To conform strictly to Underwriters' requirements, triple bar latch is always furnished. Single bar latch can be furnished on application. Fixtures furnished for either flush or lap doors.

The following list price includes a set of fixtures complete, with bolts (except pintle bolts), for attaching hardware, and heavy washers for wall bolts.

Wall bolts will be furnished on request at a moderate price if thickness of wall is given.



Fig. A-1889

### List Price

- \*No. 706-2 or 706-3 Fixtures complete, for doors up to 7 ft. 3 in. high, (with 4 hinges), weight 133 lbs. Per set.....\$24.00
  - \*No. 706-2 or 706-3 Fixtures complete, for doors 7 ft. 4 in. to 8 ft. 3 in high (with 6 hinges) weight 153 lbs. Per set..... 27.00
  - \*No. 706-2 or 706-3 Fixtures complete, for doors 8 ft. 4 in. to 10 ft. 4 in high (with 8 hinges), weight 173 lbs. Per set..... 30.00
  - †No. 706-2 or 706-3 Fixtures, less automatics, deduct \$10.00 from the price of complete sets listed above.
  - No. 706 Automatics only, weight 62 lbs. Per set..... 12.00
- If top and bottom bolts for standing doors are desired, specify No. 306-026 inside latch and add \$2.50 to list price.
- \*If single bar latch is desired instead of triple latch, deduct \$5.00 from list prices above.
- †Use this price when No. 643 Door Check is used for automatically closing the doors.

Discount.....

### Directions for Ordering

Give all dimensions asked for on page 306 and state if top and bottom bolt is required. Types of frames shown on page 313.

This fixture requires 3 1/2 inches headroom above top of door and only 3 1/2 inches of side wall space on each side of door.

Frames for flush doors are shown on pages 266 to 268.

Detail of parts shown page 316. See pages 256-257 for R-W Standard Approved and Labeled Tin Clad Fire Doors.

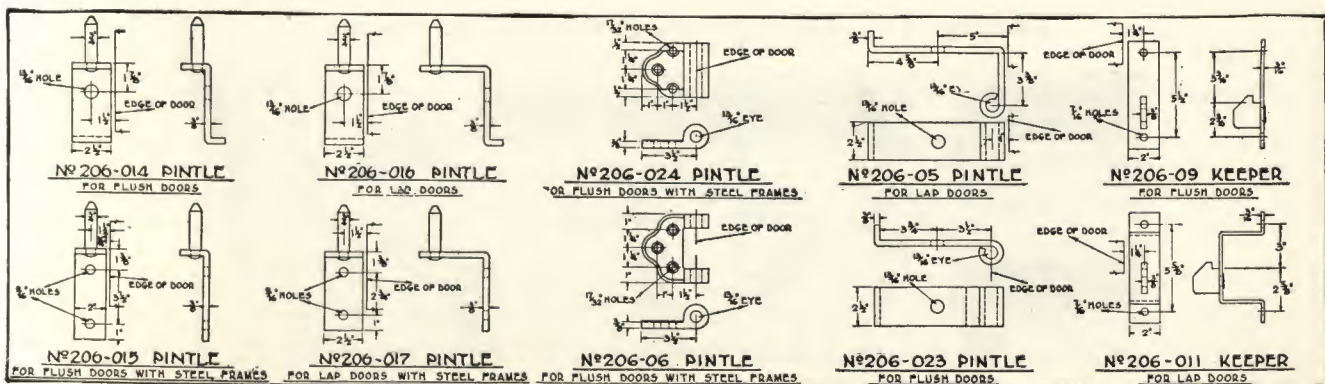


Fig. A-1890



## Detail of Parts for Nos. 606 and 706 Swing Fire Door Fixtures

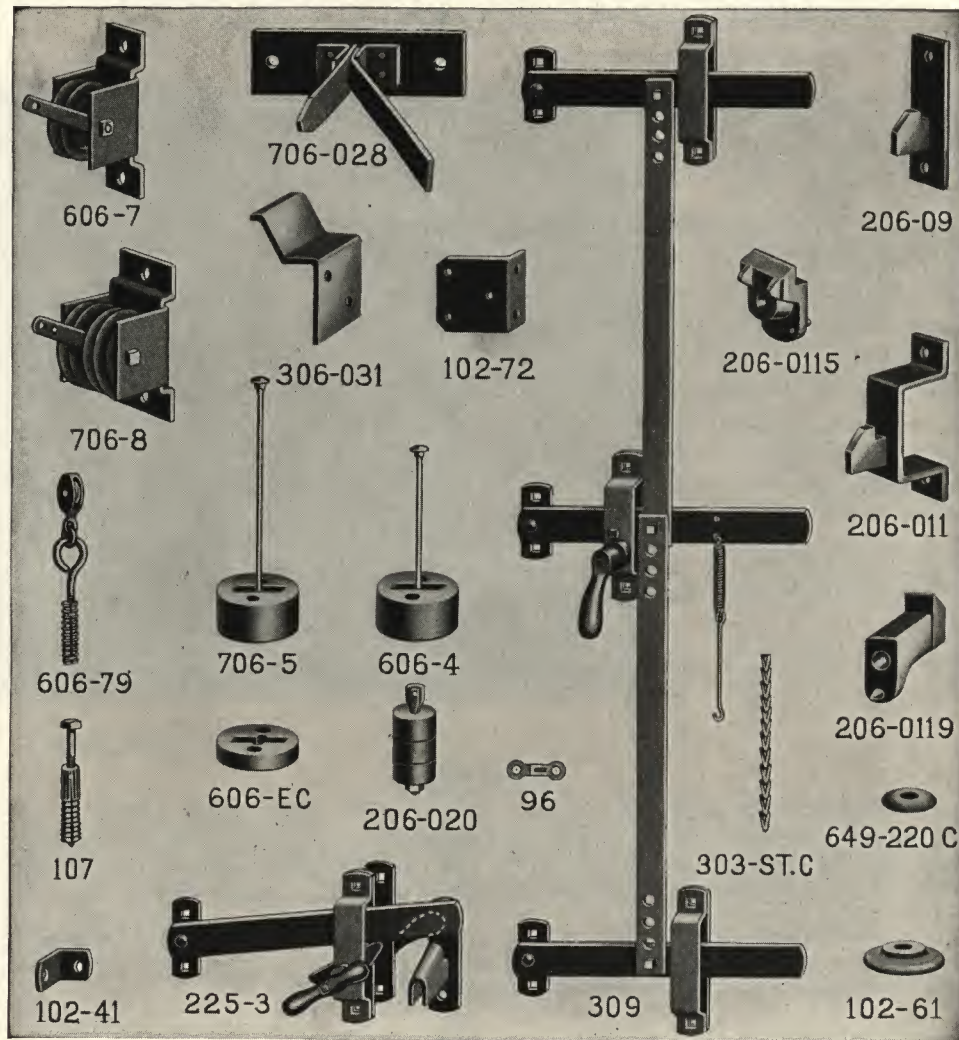


Fig. A-1891

**Note:** Keeper shown with No. 225-8 Latch is used for doors in pairs. No. 206-0115 used for single doors.

## Details of Pintels and Hinges for Swing Fixtures

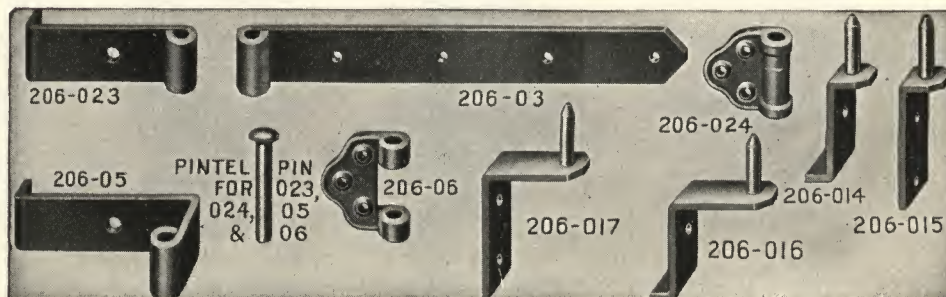


Fig. A-1892



## Packing List and List Price of Parts Used on Nos. 606 and 706 Swing Fire Door Fixtures

606-2	606-3	706-2	706-3	DESCRIPTION	List Price
1 1 *	1 1 *	1 2 *	1 2 *	No. 96 Fusible Link, each..... No. 102-41 Rope Angle, each..... No. 102-61 Cast Washers (as required), each.....	\$ .30 .18 .18
1 pc.	1 pc.	1 pc. 3	1 pc. 3	No. 102-72 Bumper Shoe, each..... No. 102-SC Sash Cord, per foot..... No. 206-09 Latch Keeper for doors in pairs, each.....	.12 .07 .35
3 1	3 1	2	2	§No. 206-011-2 Latch Keeper for two-ply single lap doors, each..... §No. 206-011-3 Latch Keepers for three-ply single lap doors, each..... No. 206-020 Weight (3 small) with weight holder, complete.....	.72 .72 .36
3 3	3 3			No. 206-0115 Latch Keeper for single flush doors, each..... §No. 206-0119-2 Latch Keeper for two-ply single lap doors, each..... §No. 206-0119-3 Latch Keeper for three-ply single lap doors, each.....	.18 .24 .24
1 pc. 1	1 pc. 1	1 pc. 1	1 pc. 1	†No. 225-3 Single Latch, each..... No. 303-STC Sash Chain, per foot..... ††No. 309 Triple Latch (with flush or lap door keepers) complete.....	1.20 .12 6.00
1 1 1	1 1 1	2	2	No. 606-4 Weight, 5½ pounds, each..... No. 606-7 Pulley and Trip, complete..... No. 606-79 Screw Eye and Pulley, complete.....	.72 2.40 .30
1 3	2 3	2	4	No. 606-EC Extra Weights, each..... No. 649-220C 2½" diameter Cast Washers for No. 206-0115 or No. 206-0119 Keepers, each.....	.24 .12
		1 1 1	1 1 1	No. 706-8 Pulley and Trip, complete..... No. 706-5 Weight, each..... No. 706-028 Door Control, each.....	2.40 .72 1.80
1	1	1	1	No. 306-031 Door Control Lifter, each..... Package of Screws and Bolts.....	.30

### Detail of Pintles and Hinges for Nos. 606 and 706 Swing Fire Door Fixtures

No. 206-03 Hinge Straps, 12", per pair.....	\$1.20
No. 206-03 Hinge Straps, 15", per pair.....	1.20
No. 206-03 Hinge Straps, 18", per pair.....	1.20
No. 206-03 Hinge Straps, 21", per pair.....	1.45
No. 206-03 Hinge Straps, 24", per pair.....	1.45
No. 206-03 Hinge Straps, 30", per pair.....	1.80
No. 206-03 Hinge Straps, 36", per pair.....	2.15
No. 206-03 Hinge Straps, 42", per pair.....	2.50
No. 206-03 Hinge Straps, 48", per pair.....	2.90
No. 206-05-2 Hinge Pintles with pintle pins (for two-ply lap door only) per pair.....	1.50
No. 206-05-3 Hinge Pintles with pintle pins (for three-ply lap door only), per pair.....	1.50
No. 206-06 Hinge Pintles with pintle pins (flush doors, angle iron frames), per pair.....	1.50
No. 206-014 Hinge Pintles (Flush doors, masonry walls), per pair.....	1.20
No. 206-015 Hinge Pintles for flush doors with angle iron or channel iron frames, per pair.....	1.20
No. 206-016-2 Hinge Pintles for two-ply (1¾") lap doors, masonry walls, per pair.....	1.50
No. 206-016-3 Hinge Pintles for three-ply (2⅝") lap doors, masonry walls, per pair.....	1.50
No. 206-017-2 Hinge Pintles for two-ply (1¾") lap doors with angle iron or channel iron frames, per pair.....	1.50
No. 206-017-3 Hinge Pintles for three-ply (2⅝") lap doors with angle iron or channel iron frames, per pair.....	1.50
No. 206-023 Hinge Pintles with pintle pins (flush doors) per pair.....	1.45
No. 206-024 Hinge Pintles with pintle pins (flush doors, angle iron frames) per pair.....	2.15

*Discount*.....

†Connecting bars made in five lengths, i. e., 24" adjustable for doors 4'3" to 6' high; 30" adjustable for doors 5'6" to 7' high; 36" adjustable for doors 6'6" to 8' high; 42" adjustable for doors 7'6" to 9' high; 48" adjustable for doors 8'6" to 10' high. Two connecting bars are furnished with each latch.

\*Quantity as required.

†No. 309 Triple Latch is packed regularly but No. 225-3 single latch will be substituted when so ordered.

§No. 206-0119 Keepers are furnished regularly but No. 206-011 will be substituted when so ordered.

*The angle at which Swing Doors should stand open should not be more than 100 degrees*



## R-W Fire Shutter Fixtures

### For Single Swinging Shutters

No. 307 for Two-ply (1 $\frac{3}{4}$ -inches) Tin Clad Shutters.  
No. 1307 for "FyeR-Wall" Sheet Metal Shutters.

### For Swinging Shutters in Pairs

No. 407 for Two-ply (1 $\frac{3}{4}$ -inches) Tin Clad Shutters.  
No. 1407 for "FyeR-Wall" Sheet Metal Shutters.

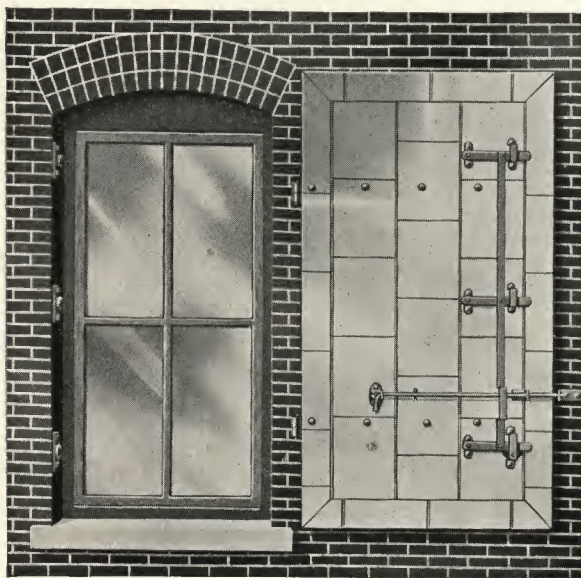


Fig. A-1893—R-W No. 307 Fire Shutter Fixtures

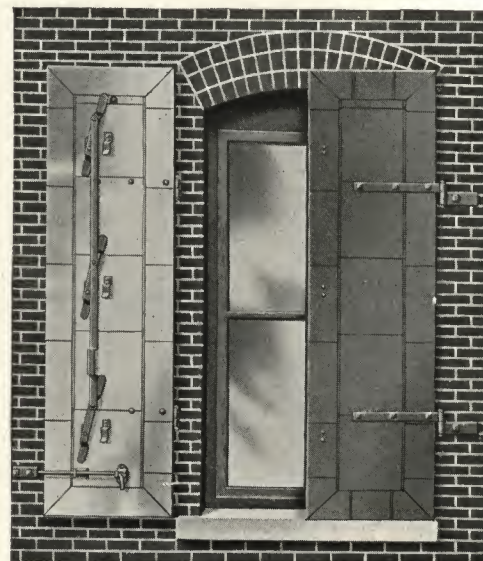


Fig. A-1894—R-W No. 407 Fire Shutter Fixtures

Fire Shutters are one of the greatest protections against fire that can be applied to a building, and all buildings within the reach of a possible fire from other buildings should be equipped with fire shutters. These fixtures designed to meet the requirements of Underwriters, for protecting window openings.

The following list price includes a set of fixtures complete, and all bolts for attaching hardware to shutters.

Wall bolts for pintles will be furnished at a moderate price if thickness of wall is given.

### Directions for Ordering

**First**, state number of openings.

**Second**, width and height of opening (mention width first and do not say shutters when you mean openings).

**Third**, are shutters to lap wall or to fit flush in masonry openings?

**Fourth**, are openings square top or arched top?

**Fifth**, are shutters to be two-ply (1 $\frac{3}{4}$ -inch), Tin Clad or "FyeR-Wall" sheet metal?

**Sixth**, thickness of wall when wall bolts are required.

**Seventh**, see pages 253 to 257 for R-W Standard Approved and Labeled Tin Clad shutters and R-W "FyeR-Wall" sheet metal shutters.

**Eighth**, Shutter fixtures suitable for Merchant and Evans shutters furnished when required.

**Note**—Unless otherwise specified on order, fixtures complete will be sent for tin clad shutters 1 $\frac{3}{4}$ -inch thick. Detail of parts shown on opposite page.

### Price List

	Nos. 307 and 1307	Nos. 407 and 1407
Fixtures complete, for shutters up to 7 ft. 3 in. high, (with double latch). Per set. . . . .	\$7.80	\$13.00
Fixtures complete, for shutters 7 ft. 4 in. to 10 ft. 3 in. high, (with triple latch). Per set. . . . .	10.75	17.00

*Discount*.....

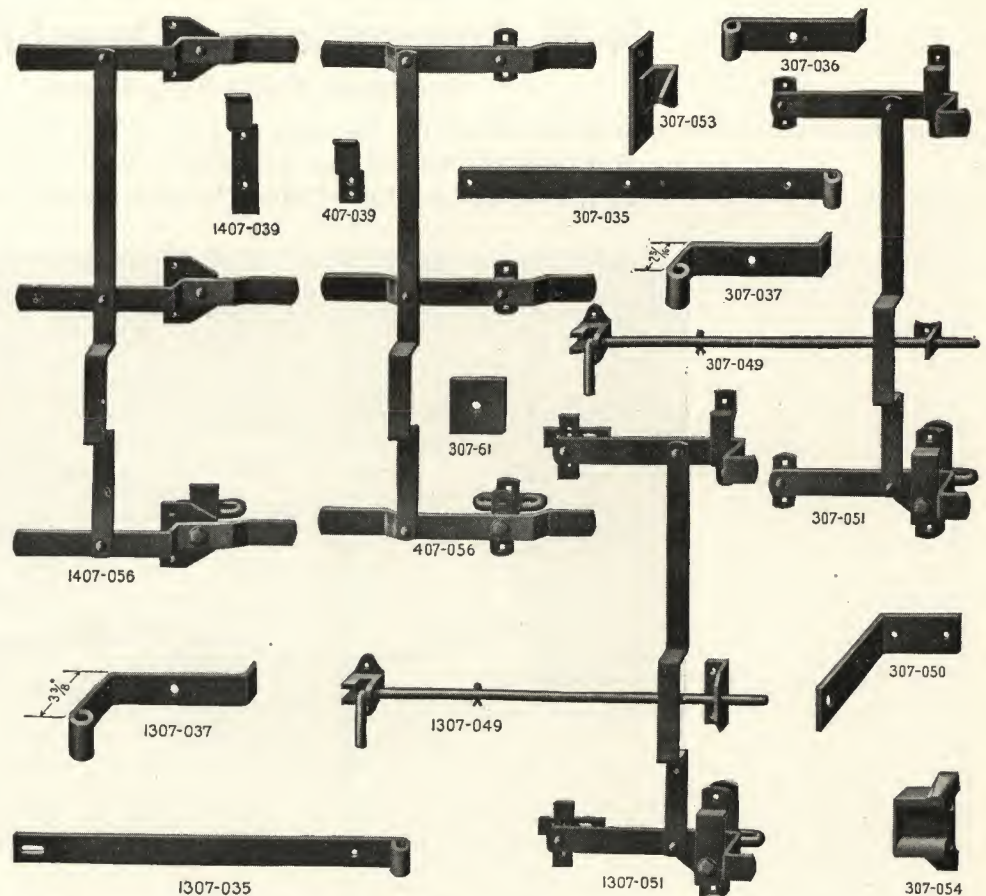
Note: Underwriters require three hinges on shutters over 7 feet 4 inches in height and to cover three-fourths of the width of each shutter.



## Detail of Parts

For Nos. 307, 1307, 407  
and 1407

Swinging Fire Shutter Fixtures.



Underwriters require hinges to cover three-fourths the width of shutter. Hinge straps are made of  $1\frac{3}{4}$  x  $\frac{5}{16}$ -inch steel.

Number	DESCRIPTION	List Price
307-035	Hinge Straps, 18 inches or under, per pair.....	\$1.30
307-035	Hinge Straps, 24 inches long, per pair.....	1.45
307-035	Hinge Straps, 30 inches long, per pair.....	1.55
307-035	Hinge Straps, 36 inches long, per pair.....	1.70
307-036	Pintle with pintle pin (for flush shutters) per pair.....	1.70
307-037	Pintle with pintle pin (for lap shutters) per pair.....	1.20
307-049	Stay Rod, each.....	1.20
307-050	Stay Rod Keeper, each.....	.60
307-051	Double Latch, with No. 307-053 or 054 Keepers complete, each.....	3.00
307-052	Triple Latch, with No. 307-053 or 054 Keepers complete, each.....	4.20
307-053	Keeper (for single lap shutter) each.....	.72
307-054	Keeper (for single flush shutter) each.....	.72
307-61	Square Steel Washer for pintle bolts, each.....	.18
407-039	Latch Bar Keeper (double shutter) each.....	.35
407-055	Double Latch, with No. 407-039 Keeper (double lap or flush shutter) complete, each.....	3.00
407-056	Triple Latch, with No. 407-039 Keeper (double lap or flush shutter) complete, each.....	4.20
307-035	Hinge Straps, 18 inches or under, per pair.....	1.30
307-035	Hinge Straps, 24 inches long, per pair.....	1.45
307-035	Hinge Straps, 30 inches long, per pair.....	1.55
307-035	Hinge Straps, 36 inches long, per pair.....	1.70
307-037	Pintle with pintle pin (for lap shutters) per pair.....	1.20
307-049	Stay Rod, each.....	1.20
307-051	Double Latch, with No. 307-053 or 054 Keepers complete, each.....	3.00
307-052	Triple Latch, with No. 307-053 or 054 Keepers complete, each.....	4.20
407-039	Latch Bar Keeper (double shutter) each.....	.35
407-055	Double Latch, with No. 1407-039 Keeper (double lap or flush shutter) complete, each.....	3.00
407-056	Triple Latch, with No. 1407-039 Keeper (double lap or flush shutter) complete, each.....	4.20

Note—Always specify by number and state size of shutter.

Discount.....

See Page 325 for Expansion Shields and Bolts.



## R-W Automatic Fire Door Fixtures

For Small Single Trap Doors

R-W No. 212-2 for Two-ply (1 $\frac{3}{4}$ -inch) Tin Clad Doors

R-W No. 212-3 for Three-ply (2 $\frac{5}{8}$ -inch) Tin Clad Doors

R-W No. 1212 for "FyeR-Wall" Sheet Metal Doors

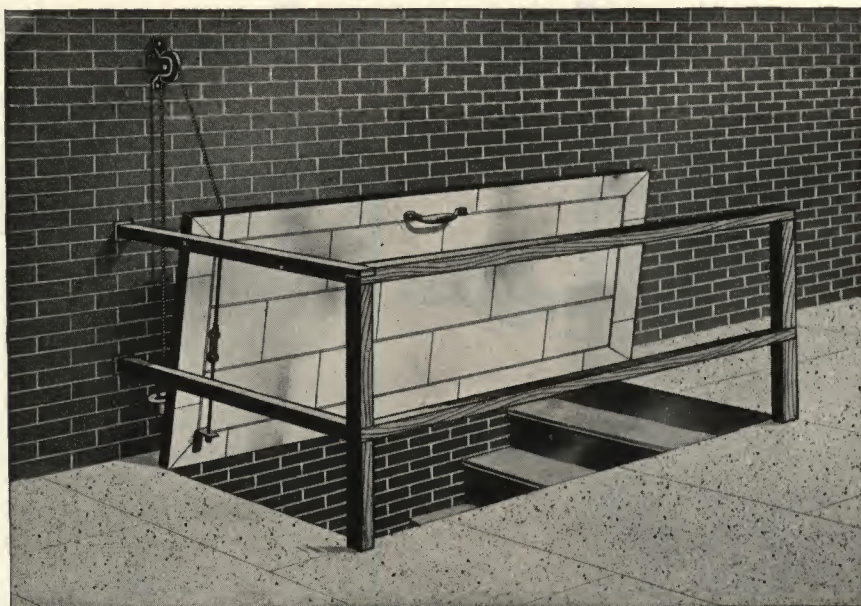


Fig. A-1896

This fixture, specified and endorsed by Underwriters, is applicable to trap fire doors. When open, the door is counter balanced by the weight and when link fuses, door closes by gravity. Twenty-one pounds of weight furnished with each set.

### Directions for Ordering

State width, height and thickness of door, also material of which same is constructed, and weight.

When hinges are desired, give above dimensions and state if same are to be attached to floor or side wall, and in either case the material of which same is constructed.

### List Price

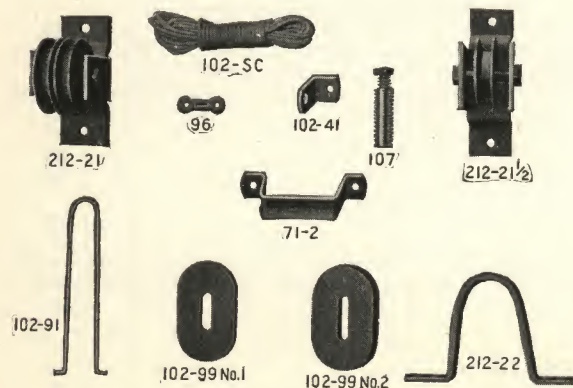
The following list price includes a set of fixtures complete, consisting of rope pulleys, weights, sash cord and all bolts for attaching hardware to door and wall.

Hinges are not included, but will be furnished at a moderate price if width and thickness of door is given and the material of which same is constructed.

\*No. 212 or 1212 Fixtures complete with No. 212-21 double pulley (less hinges) weight 37 lbs. Per set ..... \$6.60

### Discount.....

### List Price of Parts



Number	Description	List Price
71-2	Steel Handle, each.....	\$ .20
96	Fusible Link, each.....	.30
102-41	Rope Angle, each.....	.18
102-91	Weight Holder, each.....	.18
102-99-1	Light Weight, 3 pounds, each.....	.30
102-99-2	Heavy Weight, 9 pounds, each.....	.90
102-SC	No. 7 Sash Cord, per foot.....	.07
107	Expansion Bolt, $\frac{1}{2}$ x 5 inches, each.....	.24
212-21	Double Pulley, each.....	1.80
212-22	Back Stop for Door, each.....	.60
212-21 $\frac{1}{2}$	Single Pulley (discontinued).....	—
303-STC	No. 2 Steel Sash Chain, per foot.....	12

### Discount.....

Note—Always specify by number and state size of door.



## R-W Automatic Fire Door Fixtures

For Large Single Trap Doors

No. 412-2 for Two-ply (1¾-inch) Tin Clad Doors.

No. 412-3 for Three-ply (2⅝-inch) Tin Clad Doors.

No. 1412 for "FyeR-Wall" Sheet Metal Doors.

THIS fixture is designed to carefully balance trap doors in any position. If heavy trap doors are mounted in the usual way, without a compensating device, the doors are very hard to operate through some parts of their travel. The double cone shaped drum in this device equalizes the reaction of the weights on the door in all positions.

When the fusible link melts a part of the counterweight is dropped off and the door closes gradually, being retarded by the part of the counterweight which remains attached to the cable. The counterweights equal 35 per cent of the door when simple counterweighted, as shown in illustration, or 70 per cent of weight of door when counterweights are compounded.

### Minimum Distance from Floor to Ceiling

Width or Length of Door Parallel To Hinge Straps	Simple Counter-Weight	Compounded Counter-Weight
3 Ft.	6' 6"	4' 6"
4 Ft.	8' 0"	5' 3"
5 Ft.	9' 6"	6' 0"
6 Ft.	11' 0"	6' 9"
7 Ft.	12' 6"	7' 6"
8 Ft.	14' 0"	8' 3"
9 Ft.	15' 6"	9' 0"
10 Ft.	17' 0"	9' 9"

### Directions for Ordering

**State:**—Weight, height and thickness of door and also of opening; Are doors tin clad or corrugated sheet metal; Are hinges to be attached parallel to the long side of the door (as in illustration above) or to the short side of the door as illustrated on opposite page; Distance from floor to ceiling; Are the doors mounted to overlap the floor (as shown in the illustration) or are they set in rabbets flush with the floor; State distance from side of opening (to which door is hinged) to the wall (if there is no wall to which the pulleys can be attached purchaser must provide suitable supports).

Bolts and screws for attaching hardware to door are regularly furnished. If the bolts and screws are wanted for attaching to wall and floor they will be furnished at an extra price if thickness and description of wall and floor is given.

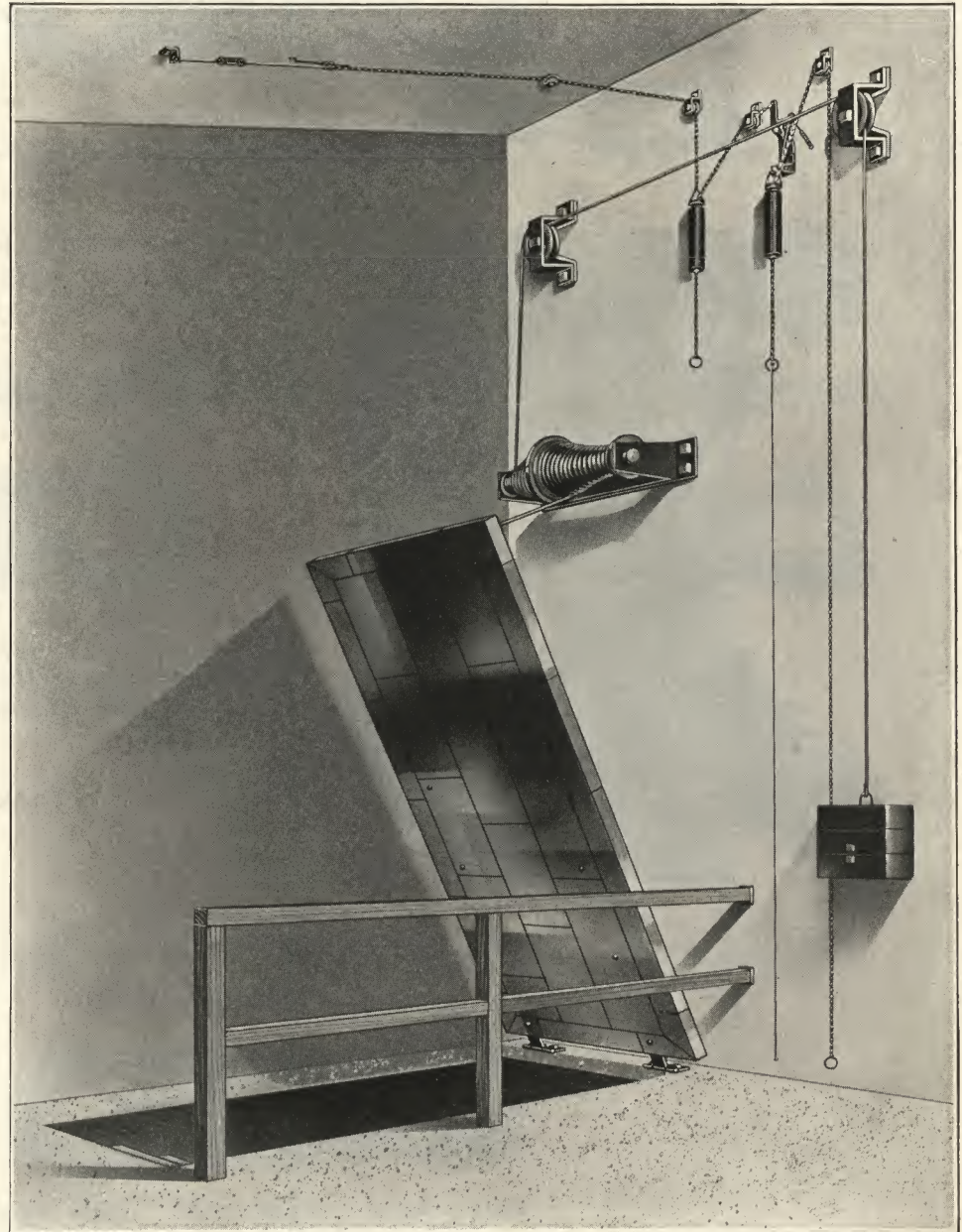


Fig. A-1897

**Note:**—Hinges are not included, but will be furnished at a moderate price if width and thickness of door is given and the material of which same is constructed.

### List Price

#### Fixtures Per Set, Less Counterweights

412-2 Fixtures (less hinges).	Weight 80 lbs.....	\$39.00
412-3 Fixtures (less hinges).	Weight 80 lbs.....	39.00
1412 Fixtures (less hinges).	Weight 80 lbs.....	39.00
Counterweights per pound.....		.10

Discount.....



## R-W No. 338 Universal Toggle Bolts

INSERT THIS SIDE UP

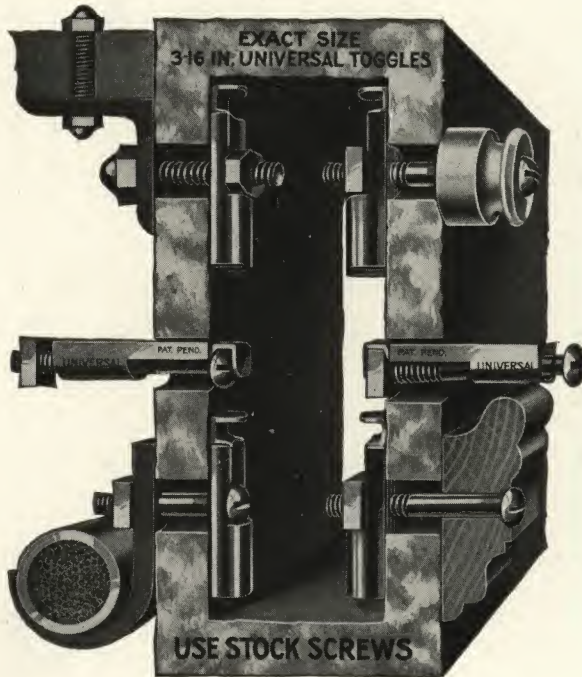
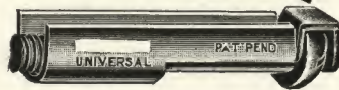


Fig. A-1900

**Strong—Convenient—Simple**

For fastening bathroom fixtures, electric light fixtures, porcelain insulators, mouldings, shelves, brackets, etc., to hollow brick, tile or lath walls.

Consists of Toggle Head, Bolt and Nut, complete. Toggle Head made of steel, compound truss construction—strongest known.

Bolt threaded entire length, with screw-driver slot in head. May be used with bolthead out, or nut out, as desirable. Goes through hole required for bolt-head or nut. If nut goes inside, shoulder on Toggle Head holds nut from turning when screwdriver is applied to bolt-head. If nut remains outside there is ample length of bolt to hold with pincers until nut is tightened with wrench.

**Packed 100 in a box.**

### List Price

#### Toggle Bolts complete with Toggle Head, Bolt and Nut

No. 338— $\frac{3}{16}$ x3 "	Per 100	\$4.50
No. 338— $\frac{3}{16}$ x3 $\frac{1}{2}$ "	Per 100	4.70
No. 338— $\frac{3}{16}$ x4 "	Per 100	5.00
No. 338— $\frac{3}{16}$ x5 "	Per 100	5.20
No. 338— $\frac{3}{16}$ x6 "	Per 100	5.70
No. 338— $\frac{1}{4}$ x3 $\frac{1}{2}$ "	Per 100	6.50
No. 338— $\frac{1}{4}$ x4 "	Per 100	6.90
No. 338— $\frac{1}{4}$ x5 "	Per 100	7.90
No. 338— $\frac{1}{4}$ x6 "	Per 100	8.50

No. 338— $\frac{5}{16}$ x3 "	Per 100	\$8.20
No. 338— $\frac{5}{16}$ x3 $\frac{1}{2}$ "	Per 100	8.80
No. 338— $\frac{5}{16}$ x4 "	Per 100	9.40

No. 338— $\frac{5}{16}$ x5 "	Per 100	10.90
No. 338— $\frac{5}{16}$ x6 "	Per 100	11.60

#### Toggle Heads Only

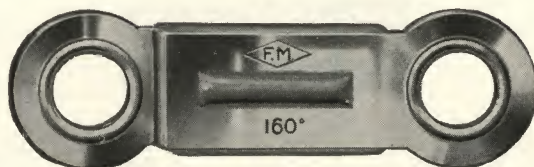
No. 338— $\frac{3}{16}$ "	Per 100	\$3.00
No. 338— $\frac{1}{4}$ "	Per 100	3.25
No. 338— $\frac{5}{16}$ "	Per 100	3.50

Discount.....

Discount.....



## R-W No. 096 Factory Mutual Fusible Link for Fire Doors



Full Size Cut No. 096

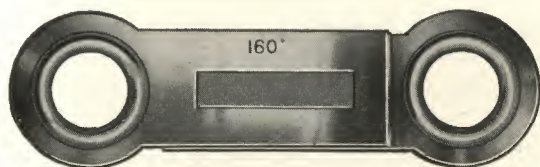
This link is manufactured especially to meet the specifications of the Factory Mutual Laboratories. It fuses at 160° Fahrenheit.

### List Price

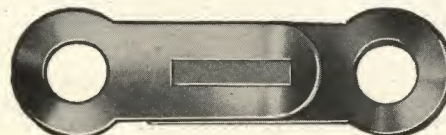
No. 096—Fusible Link, each..... \$ .35

Discount.....

## R-W Nos. 96 and 96 1-2 Fusible Link for Fire Doors



Full Size Cut No. 96



Full Size Cut No. 96½

These fusible links are used for fire door fixtures and are adapted for use on all doors and windows, which are constructed to close automatically by heat. These links melt at 160 degrees Fahrenheit.

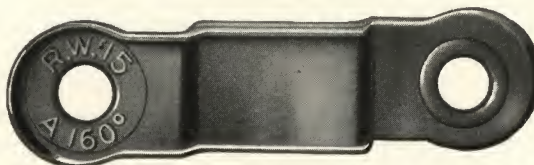
### List Price

No. 96 Fusible Link, each..... \$ .30  
 No. 96½ Fusible Link, each..... .20

Discount.....

## R-W No. 97 Approved Fusible Link for Fire Doors

Each Link Stamped 160 Degrees.



Full Size Cut No. 97.

This link is included in list of fire door hardware which is inspected and labeled by the Underwriters' Laboratories, Inc., under direction of the National Board of Fire Underwriters.

### List Price

No. 97 Approved and Labeled Link, each..... \$ .50  
 Lots of 25, each..... .40  
 Lots of 50, each..... .30  
 Lots of 100, each..... .25  
 Lots of 500, each..... .24  
 Lots of 1,000, each..... .22  
 Lots of 2,000, each..... .20  
 Packed regularly 100 in a box.

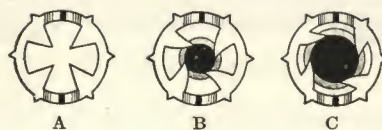
Discount.....



## No. 87 Diamond Multi-Size Screw Anchor

Diamond Multi-Size Screw Anchors are so constructed that each size of anchor will accommodate a great range of different diameters of screws. The four sizes of Multi-Size Anchors (as shown in table below) will cover a range of screw diameters previously requiring twenty-one anchors of varying diameters and lengths; for instance, the No. 8 to 14 x 1" Multi-Size Anchor will work successfully with all sizes of wood screws ranging from No. 8 to No. 14 inclusive. This is accomplished by the flexible interior ribbing which is illustrated on the right.

The high projecting interior ribs support and centrally locate a small No. 8 wood screw causing the shield to expand and giving ample holding capacity for that size of screw. In this same size of anchor larger screws up to and including No. 14 may be used equally well. As larger screws are inserted the ribs are caused to break down or to wipe over, allowing the larger screw to enter with a still greater expansion and a greater holding capacity.



(A) Shows the interior of the anchor before a screw is inserted.

(B) Shows a screw of small diameter inserted in the anchor supported upon interior ribs.

(C) Shows a screw of large diameter inserted in the same anchor; note how the ribs are pressed down.

TO THE DEALER who now carries a stock of screw anchors comprising fifteen or more different sizes the Diamond Multi-Size Screw Anchor will prove a great advantage. Customers who require screw anchors for different kinds of work running from No. 8 to No. 14 can be supplied with one size of anchor and so on throughout the entire range of screw diameters.

TO THE USER of screw anchors it will be a great advantage due to the fact that by having on hand a supply of a few different sizes of anchors he will be able to use them with the full range of wood screws running all the way from the small No. 5 equivalent to 1/8", up to the No. 20 equivalent to 5/8" diameter. Another advantage in the Diamond Multi-Size Screw Anchor is the small diameter of hole that it is necessary to drill in the wall. This results in economy to the contractor who uses screw anchors in large quantities. It furthermore reduces the number of sizes of drills that his men need to be equipped with on account of the lesser number of sizes of anchors required to accomplish the same purpose.

List Price and Dimensions. (Screws Not Included in List Price)

Size of Anchors	No. 5 to No. 10 x 3/4"	No. 8 to No. 14 x 1"	No. 16 to No. 20 x 1"	No. 16 to No. 20 x 1 3/4"
For Wood Screws	No. 5 to No. 10	No. 8 to No. 14	No. 16 to No. 20	No. 16 to No. 20
For Lag Screws		1/4" Lag Screws	1/4" and 5/16" lag screws	1/4" and 5/16" lag screws
Length of Anchor	3/4"	1"	1"	1 3/4"
Outside Diameter of Anchor and Drill Size	1/4"	5/16"	7/16"	7/16"
Price per 100	\$5.00	\$5.60	\$6.25	\$10.00



No. 107 1/2



No. W-206 1/2

### No. 107 1/2 and No. W-206 1/2 Screw Anchors

Screw anchors are made of Composition Metal in one piece, and are so constructed that the screw cuts its own thread. This enables its use with any wood, machine or special screw, its efficiency with all styles being equal.

Will not break, chip, mark or deface the finest marble or tile. The Lead Composition is non-rusting. Adapted especially for plumbing and electrical work on tile, marble or stone.

### Discount

### Instructions For Using

#### To Use No. 107 1/2 and No. 206 1/2 Screw Anchors

Drill a hole the same size as given outside diameter of Anchor to be used.

Insert the Anchor flush with the surface; put the Screw through the article or material to be attached, then on into the Anchor and fasten tight. The Anchor is made of soft lead composition; the Screw when forced through the Anchor cuts its own thread.

List Price of Nos. 107 1/2 and W-206 1/2 Screw Anchors (Screws not Included in Price)

Diameter of Screw in Inches	Length of Anchor	Diameter of Screw by Number	Outside Diameter Size Drill to use	List per 100	Diameter of Screw in Inches	Length of Anchor	Diameter of Screw by Number	Outside Diameter Size Drill to use	List per 100
1/8"	1/2"	No. 5-6-7	1/4"	\$ 4.40	5/16"	3/4"	No. 15-16-17-18	7/16"	\$ 6.25
1/8"	5/8"	No. 5-6-7	1/4"	4.40	5/16"	1"	No. 15-16-17-18	7/16"	6.25
1/8"	3/4"	No. 5-6-7	1/4"	4.40	5/16"	1 3/8"	No. 15-16-17-18	7/16"	10.00
1/8"	1"	No. 5-6-7	1/4"	4.40	5/16"	1 1/2"	No. 15-16-17-18	7/16"	10.00
3/16"	1 1/2"	No. 8-9-10-11	1/4"	5.00	5/16"	2"	No. 15-16-17-18	7/16"	13.00
3/16"	3/4"	No. 8-9-10-11	1/4"	5.00	5/16"	1"	No. 20-22-24	9/16"	13.00
3/16"	1"	No. 8-9-10-11	1/4"	5.00	5/16"	1 1/4"	No. 20-22-24	9/16"	15.00
3/16"	1" Light	No. 8-9-10-11	3/8"	5.60	5/16"	2"	No. 20-22-24	9/16"	15.00
3/16"	1" Heavy	No. 8-9-10-11	3/8"	6.25	5/16"	2"	No. 26-28-30	3/4"	25.00
1/4"	1 5/8"	No. 12-13-14	3/8"	5.60	5/8"	2"	5/8" Lag Screw	7/8"	30.00
1/4"	1 1/2"	No. 12-13-14	3/8"	5.60	5/8"	3 1/2"	5/8" Lag Screw	7/8"	50.00
1/4"	2"	No. 12-13-14	3/8"	8.00					
1/4"	2 1/2"	No. 12-13-14	3/8"	10.00					
1/4"		No. 12-13-14	3/8"	12.00					

Put up in wooden boxes 100 to a box.  
\*Light pattern 3/16" x 1" furnished unless otherwise specified.

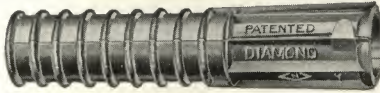
Note—Drills for above screw anchors shown on Page 493. For expansion bolts see next page.

Discount



## No. 107

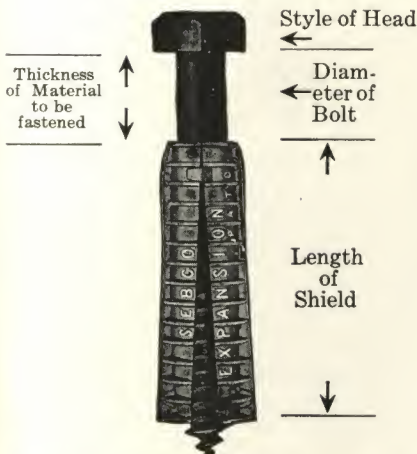
### New "Diamond N" Expansion Shield



### New "Diamond N" Expansion Bolt



**Note**—For List Price see table below. Unless otherwise specified on order Long Standard Shields only will be sent.



The illustration given here shows how to determine the measurements of the lag screw type with shield.

## No. W-206

### "Sebco" Expansion Bolts



### "Sebco" Expansion Shields



**Note**—Unless otherwise specified on order Long Standard Shields only, will be sent.

### Instructions for Using

#### No. 107 and No. 206 Expansion Shields and Bolts.

Drill a hole the same size as the given outside diameter of the shield to be used, place the shield in the wall and set well back.

Run the screw through the material or article to be fastened, then into the inserted Shield and fasten tight.

**Note:** For Screw Anchors see preceding page.

### List Price—No. 107 or No. W-206

Shields Only, per 100—Two-Part Malleable—Based on Diameter of Screw

Diameter of Lag Screw.....	$\frac{1}{4}$ inch	$\frac{5}{16}$ inch	$\frac{3}{8}$ inch	$\frac{7}{16}$ inch	$\frac{1}{2}$ inch	$\frac{5}{8}$ inch	$\frac{3}{4}$ inch	$\frac{7}{8}$ inch	1 inch
Price, per 100.....	\$15.00	\$18.00	\$25.00	\$32.00	\$38.00	\$45.00	\$65.00	\$95.00	\$110.00
Length of Shield—Long Standard.....	1½	2	2¾	3	3½	3½	3½	5	5
Length of Shield—Short Standard.....		1½	2	2	2	2	2		
Outside Diameter of Shield.....	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1¼	1½
Diameter of drill required for No. 107.....	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1¼	1½
Diameter of drill required for No. W206.....	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1¼	1½

**Discount**.....

**Note**—In ordering state whether Diamond N or Sebco Shields are wanted, also specify by number, stating size and if Long or Short Standard are desired.





## Trolley Track Type of Conveying Equipment

THE illustrations on the opposite page show but a few of the many uses to which the Trolley Track Type of Conveying Equipment is put.

We know of no business, no matter how large or small, where material or merchandise must be moved long or short distances but that an installation of Overhead Conveying Equipment could and should be used to material advantage.

In equipping thousands of trolley track systems, from those requiring only one carrier and a few feet of track to very large and intricate systems requiring many switches, cross-overs, turn-tables, thousands of carriers and miles of track we have found that the equipment has paid for itself in less than a year; from then on the saving is clear profit.

Trolley Track Type Conveying Systems reduce the number of men formerly required, take conveying from the floor to the ceiling, (leaving the aisles free) and make possible the utilization of ceilings for storage space.



## Trolley Track Type Of Over-Head Conveying Equipment



Fig. A-1901—Handling crucible of molten brass



Fig. A-1905—Furriers find R-W equipment indispensable



Fig. A-1908—Dipping and drying room scene



Fig. A-1902—Moving small castings quickly

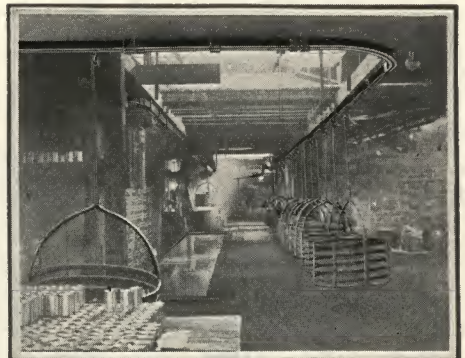


Fig. A-1909—View in soup canning factory



Fig. A-1903—"Pouring Off" greatly facilitated

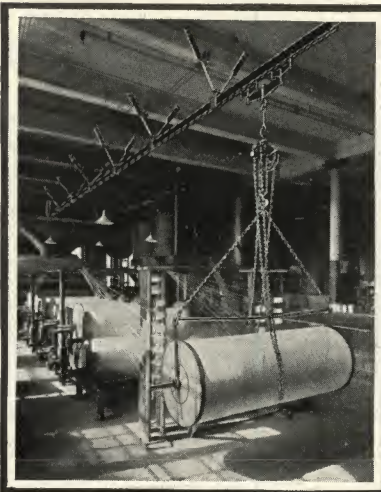


Fig. A-1906—Handles beams in cotton mills



Fig. A-1910—Indispensable in machine shops



Fig. A-1904—Fish cleaning room of cannery

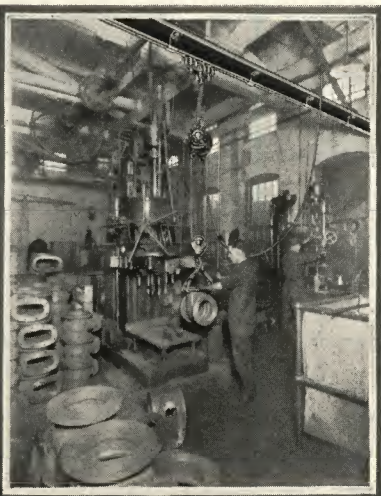


Fig. A-1907—Heavy pump valves handled easily



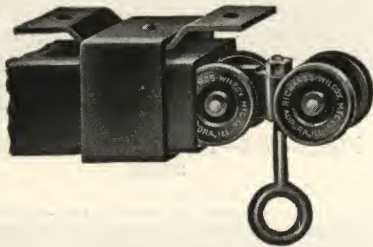
Fig. A-1911—A time saver in public garages



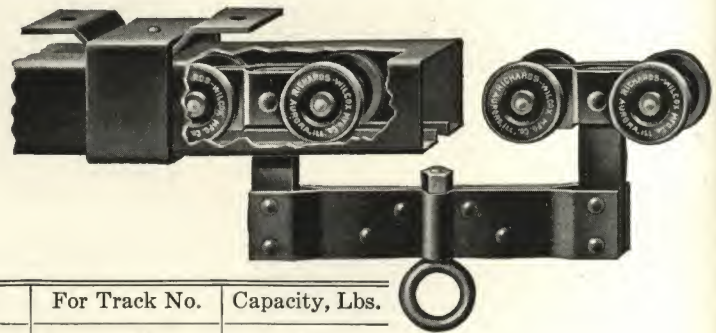
## R-W Nos. 100-1 to 100-6 Rigid Frame Roller-Bearing Carriers For Trolley Track Systems

For straight trolley track systems only, in Foundries, Factories, Mills, Shops, Warehouses, Garages and establishments of all kinds where loads have to be lifted and carried.

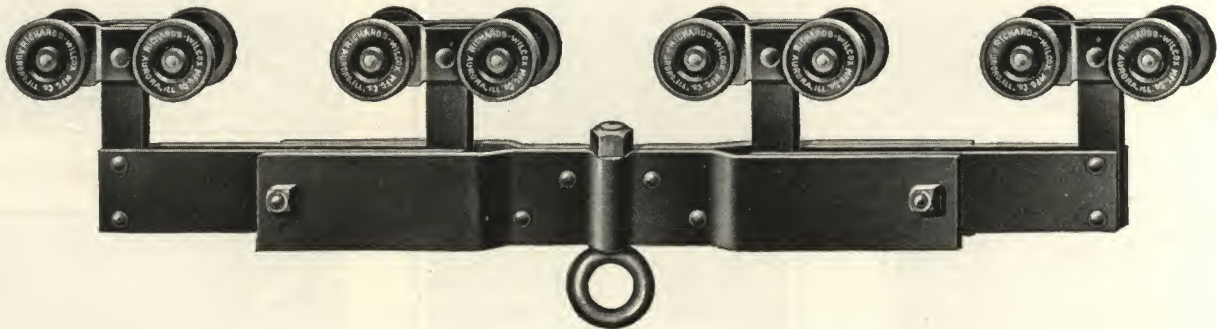
Made for three sizes of track—six capacities



Carrier No.	For Track No.	Capacity, Lbs.
100-1	75	125
100-4	175-375	600



Carrier No.	For Track No.	Capacity, Lbs.
100-2	75	250
100-5	175-375	1500



Carrier No.	For Track No.	Capacity, Lbs.
100-3	75	500
100-6	175-375	3000

Wheels, drop forged steel. (For diameter, see table below). Bearings, hardened steel rollers. Constructed of heavy steel frames and connecting bars. Eye bolt, drop forged and heat-treated. Finish, black japan. Packed in bulk. The capacity specified below is figured to allow a liberal factor of safety.

### List Price

No.	For Track No.	Capacity in Lbs.	Diameter Wheels, Inches	Length over all, Inches	Bottom of Track to Bottom of Eye, Inches	EYE BOLT		Weight Lbs.	List Price Each
						Diameter Stem, In.	Diameter Eye, In.		
100-1	75	125	2 1/8	5	3 3/8	1/2	1 1/2	1 1/2	\$ 2.00
100-2	75	250	2 1/8	14	5 3/4	1/2	1 1/2	5 1/2	5.50
100-3	75	500	2 1/8	30	6 1/2	5/8	1 1/2	16	11.00
100-4	{ 175 or 375	600	3	7	3 3/8	1/2	1 1/2	4 1/2	5.50
100-5		1500	3	20	6 1/2	5/8	1 1/2	13	8.50
100-6		3000	3	44	8	7/8	1 7/8	50	17.00

Tracks and Brackets to suit requirements. For prices, description, etc., see pages 345 and 346.

### Directions for Ordering

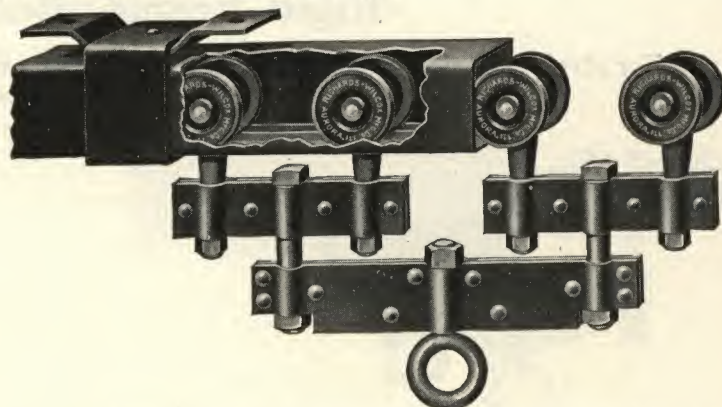
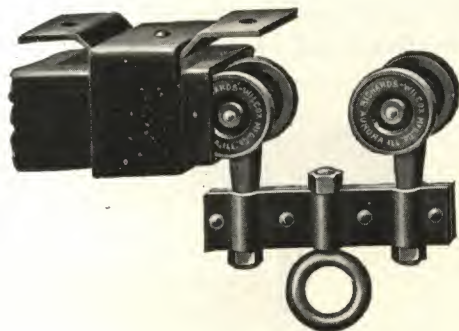
Discount.....

State weight of maximum load and whether for constant or occasional use.



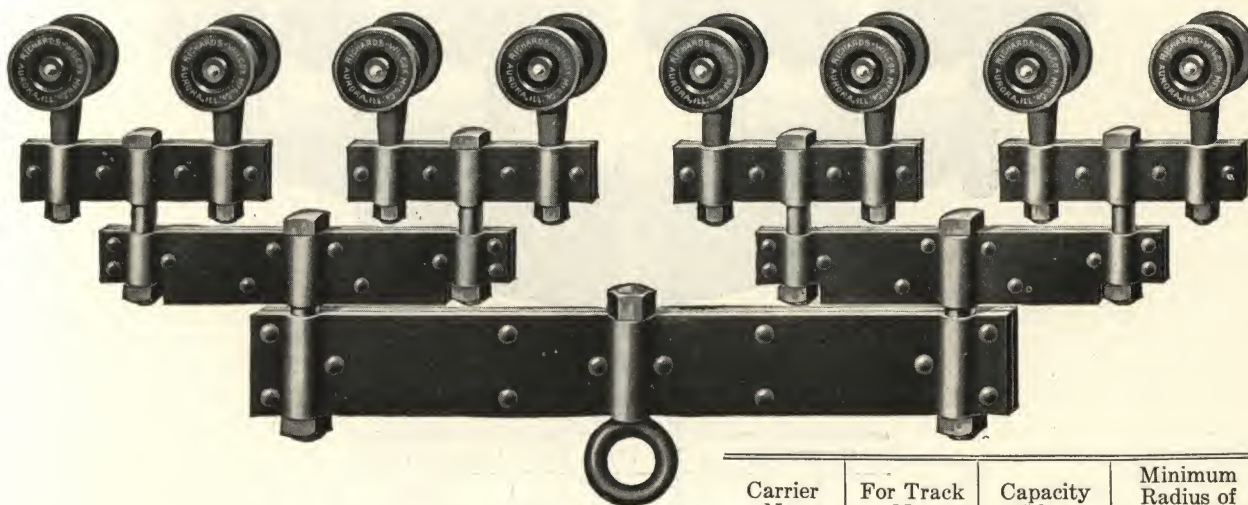
## R-W Nos. 100-10 to 100-15 Swivel Frame, Roller-Bearing Carriers

For Trolley Track Systems with Straight and Curved Track



Carrier No.	For Track No.	Capacity Lbs.	Minimum Radius of Curved Track
100-14	75	125	24"
100-15	175-375	750	24"

Carrier No.	For Track No.	Capacity Lbs.	Minimum Radius of Curved Track
100-13	75	250	24"
100-11	175-375	1500	24"



Carrier No.	For Track No.	Capacity Lbs.	Minimum Radius of Curved Track
100-12	75	500	36"
100-10	175-375	3000	42"

Wheels, drop forged steel. (For diameter see table below). Bearings, hardened steel rollers. Pendants, drop forged; each set (two wheels and pendant), forms a complete unit which swivels independently, permitting carrier to operate in either straight or curved track. Frames and connecting bars of heavy steel construction. Eye bolt,

drop-forged and heat-treated. Finish, black japan. Packed in bulk. The capacity specified below is figured to allow a liberal factor of safety.

### List Price

No.	For Track No.	Capacity in Lbs.	Diameter Wheels, Inches	Length over all, Inches	Bottom of Track to Bottom of Eye, Inches	EYE BOLT		Weight Lbs.	List Price Each
						Diameter Stem, In.	Diameter Eye, In.		
100-14	75	125	2 1/8	7	5 1/8	1/2	1 1/2	3	\$ 4.00
100-13	75	250	2 1/8	14	7 1/4	1/2	1 1/2	9	8.50
100-12	75	500	2 1/8	31	10 1/4	5/8	1 1/2	23	16.00
100-15	{ 175 or 375	750	3	9	6 1/4	5/8	1 1/2	7	7.00
100-11		1500	3	21	9 1/4	3/4	1 3/4	20	16.00
100-10		3000	3	44	13 1/4	7/8	1 7/8	56	27.00

Tracks and Brackets to suit requirements. For prices, description, etc., see pages 345 and 346.

### Directions for Ordering

State weight of maximum load and whether for constant or occasional use.

Discount.....

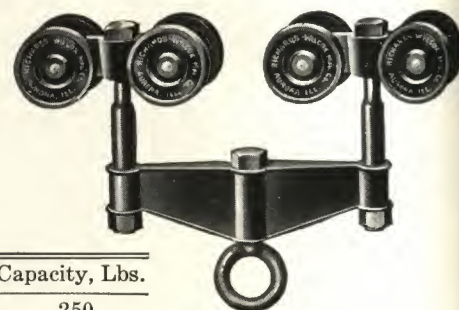
*Even Large Over-Way Installations pay for themselves within a Year*



## R-W No. 100-25 to 100-30 Rigid Frame, Ball-Bearing Carriers

For straight trolley track systems only, in Foundries, Factories, Mills, Shops, Warehouses, Garages and establishments of all kinds where loads have to be lifted and carried.

Made in three sizes of track, six capacities



Carrier No.	For Track No.	Capacity, Lbs.
100-25	75	125
100-28	175-375	600

Carrier No.	For Track No.	Capacity, Lbs.
100-26	75	250
100-29	175-375	1250



Carrier No.	For Track No.	Capacity, Lbs.
100-27	75	500
100-30	175-375	2500

Wheels are of drop-forged steel. (For diameter—see table below). Bearings, High Duty steel balls. Frames, drop-forged, with heavy steel pendants. Connecting bars, malleable iron. Eye bolt, drop-forged and heat-treated. Finish, black japan. Packed in bulk. The capacity specified below is figured to allow a liberal factor of safety.

### List Price

No.	For Track No.	Capacity in Lbs.	Diameter Wheels, Inches	Length over all, Inches	Bottom of Track to Bottom of Eye, Inches	EYE BOLT		Weight Lbs.	List Price Each
						Diameter Stem, In.	Diameter Eye, In.		
100-25	75	125	2 1/8	5	3 1/4	1/2	1 1/2	2	\$ 3.00
100-26	75	250	2 1/8	12	6 1/2	5/8	1 1/2	5	7.00
100-27	75	500	2 1/8	27	9	5/8	1 1/2	14	13.50
100-28	{ 175 or 375	600	3	7	3	5/8	1 1/2	5	7.00
100-29		1250	3	16	7	5/8	1 1/2	12	11.00
100-30		2500	3	34	10 7/8	7/8	1 7/8	37	21.50

Tracks and Brackets to suit requirements. For prices, description, etc., see pages 345 and 346.

### Directions for Ordering

State weight of maximum load and whether for constant or occasional use.

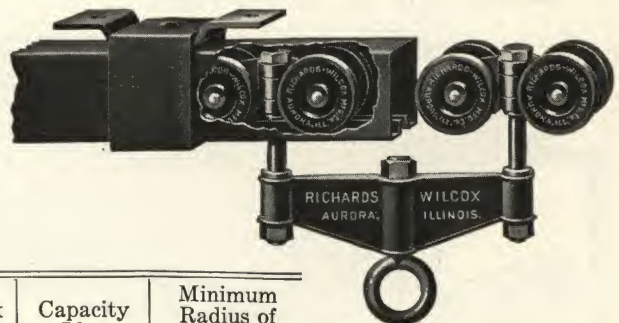
Discount.....



## R-W Nos. 100-31 to 100-36

### Swivel Frame Ball-Bearing Carriers

For Trolley Track Systems With Straight and Curved Track



Carrier No.	For Track No.	Capacity Lbs.	Minimum Radius of Curved Track
100-31	75	125	24"
100-34	175-375	600	24"

Carrier No.	For Track No.	Capacity Lbs.	Minimum Radius of Curved Track
100-32	75	250	24"
100-35	175-375	1250	24"



Carrier No.	For Track No.	Capacity Lbs.	Minimum Radius of Curved Track
100-33	75	500	36"
100-36	175-375	2500	36"

Wheels are of drop-forged steel. (For diameter, see table below). Bearings, High Duty steel balls. Frames, drop-forged, knuckle jointed with heavy steel pendants. Each set (four wheels and pendant), built with knuckle-jointed frame which permits carrier to operate in either

straight or curved track. Connecting bars, malleable iron. Eye bolt, drop-forged and heat-treated. Finish, black japan. Packed in bulk. The capacity specified below is figured to allow a liberal factor of safety.

#### List Price

No.	For Track No.	Capacity in Lbs.	Diameter Wheels, Inches	Length over all, Inches	Bottom of Track to Bottom of Eye, Inches	EYE BOLT		Weight Lbs.	List Price Each
						Diameter Stem, In.	Diameter Eye, In.		
100-31	75	125	2 1/8	5	3 1/4	1/2	1 1/2	2	\$ 4.00
100-32	75	250	2 1/8	12	6 3/8	5/8	1 1/2	5	8.50
100-33	75	500	2 1/8	27	8 7/8	5/8	1 1/2	14	16.00
100-34	175 or 375	600	3	7	2 7/8	5/8	1 1/2	5	7.00
100-35		1250	3	16	7	5/8	1 1/2	12	16.00
100-36		2500	3	34	11 1/8	7/8	1 7/8	36	27.00

Track and Brackets to suit requirements. For prices, description, etc., see pages 345 and 346.

#### Directions for Ordering

State weight of maximum load and whether for constant or occasional use.

Discount.....



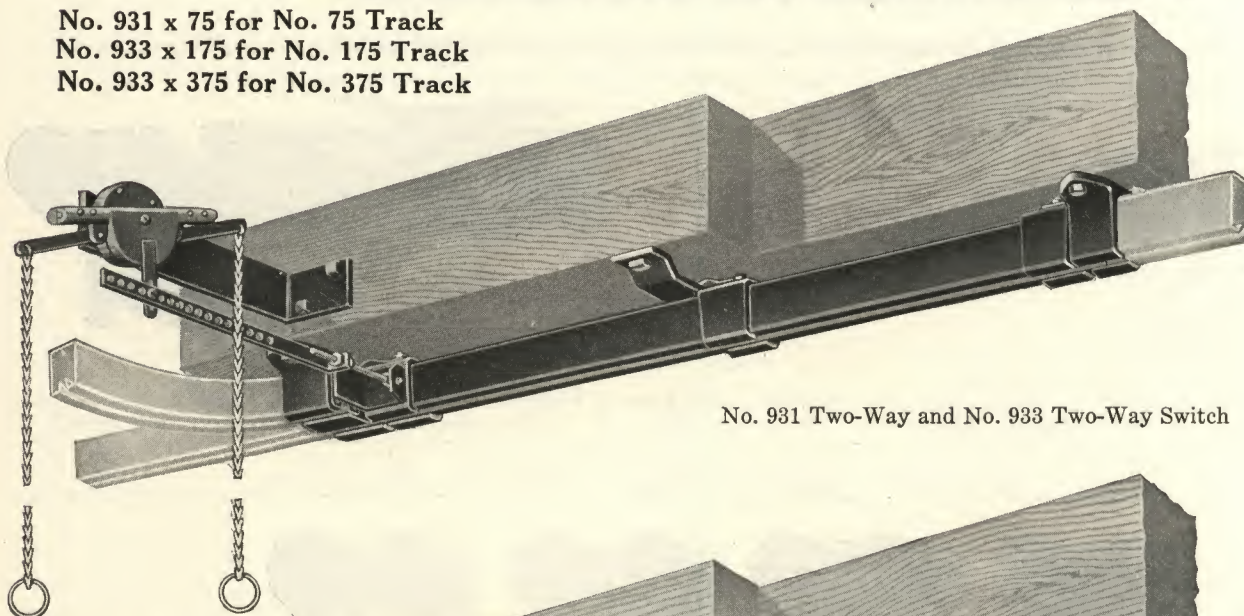
## R-W Nos. 931 and 933—Trolley Track Tongue Switches

Made for Three Sizes of Track. Each Size Made Two or Three Way

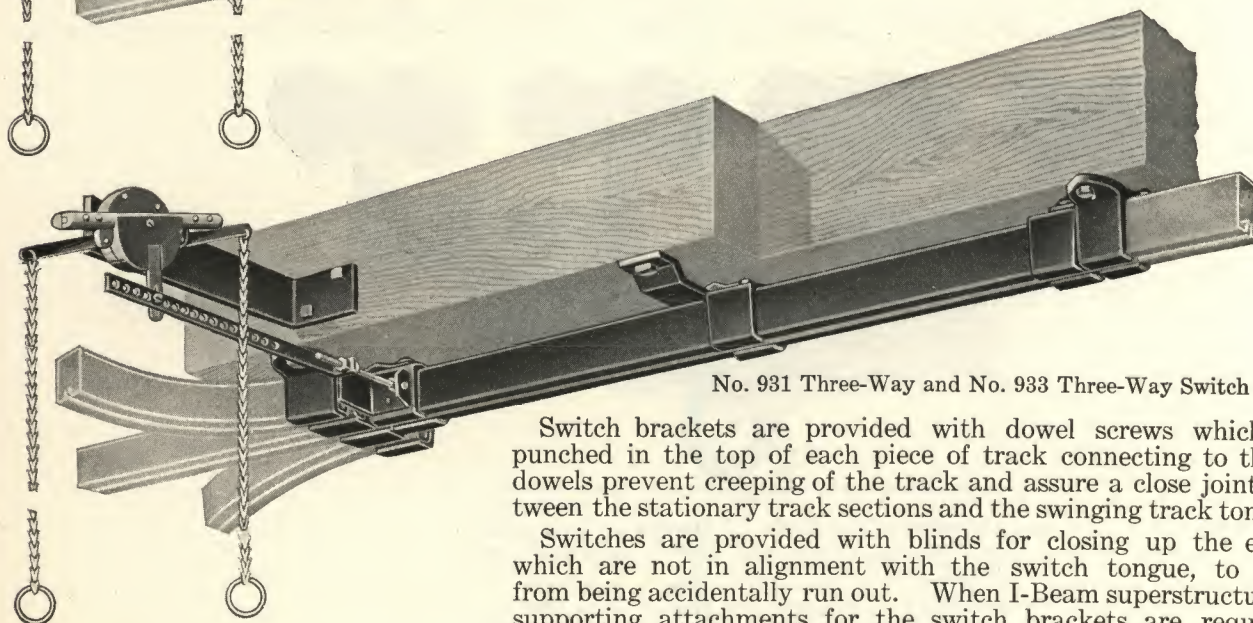
No. 931 x 75 for No. 75 Track

No. 933 x 175 for No. 175 Track

No. 933 x 375 for No. 375 Track



No. 931 Two-Way and No. 933 Two-Way Switch



No. 931 Three-Way and No. 933 Three-Way Switch

Switch brackets are provided with dowel screws which set into holes punched in the top of each piece of track connecting to the switch. These dowels prevent creeping of the track and assure a close joint permanently between the stationary track sections and the swinging track tongue of the switch.

Switches are provided with blinds for closing up the ends of the track which are not in alignment with the switch tongue, to prevent trolleys from being accidentally run out. When I-Beam superstructure is used, special supporting attachments for the switch brackets are required and will be furnished at an extra price.

The switch operating mechanism is adjustable so the end of the switch tongue can be made to line up accurately with connecting tracks. Switch tongue is positively locked in final position. Lock is released by pulling on the same chain which is used to operate the switch. Operating mechanism is reversible and can be attached to either right or left hand side of the switch.

Cuts above show section of straight and curved track with two-way and three-way switch. Finish, black japan. Always specify on order whether two or three-way is desired. Curved and straight sections of track shown at either end of switch in illustration are not included in price of switch. Give distance from floor to track to determine chain length.

### List Price

Switch No.	Track No.	Length Over All Feet	Height Over All Inches	Space Throw Requires Above Bottom of Track Inches	Weight Each, Pounds	Price List Complete, Each
No. 931 x 75—2-way	75	4	3½	11	65	\$18.00
No. 931 x 75—3-way	75	4	3½	11	70	27.00
No. 933 x 175—2-way	175	4	4¾	11	90	21.00
No. 933 x 175—3-way	175	4	4¾	11	96	32.00
No. 933 x 375—2-way	375	4	4¾	11	98	21.00
No. 933 x 375—3-way	375	4	4¾	11	106	32.00

Note—If heavy track is desired specify No. 375 instead of No. 175.



R-W No. 931

## Trolley Track Tongue Switches

R-W No. 933

(Continued)

### Detail of Parts

For No. 931 Two or Three-Way and No. 933 Two or Three-Way Switches

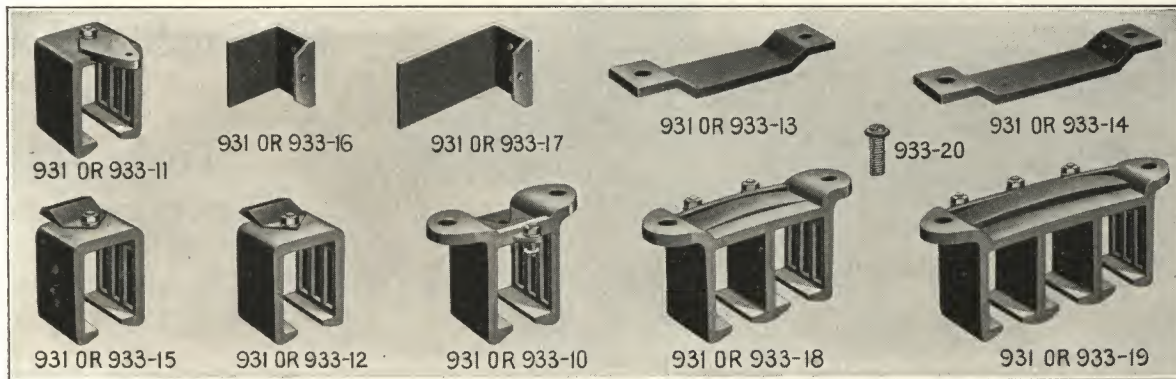


Fig. A-1912

**Note**—Always specify by number and state whether for two or three-way switch.

### List Price of Parts

Description	No.	Price, Each	No.	Price, Each
Pivot Bracket.....	931-10	\$1.35	933-10	\$2.75
Moving Bracket.....	931-11	1.35	933-11	2.75
Center Bracket.....	931-12	1.35	933-12	2.75
2-Way Switch Center Support.....	931-13	.80	933-13	1.35
3-Way Switch Center Support.....	931-14	1.10	933-14	2.00
End Bracket.....	931-15	1.60	933-15	3.20
2-Way Switch Blind.....	931-16	.80	933-16	1.35
3-Way Switch Blind.....	931-17	1.10	933-17	2.00
2-Way Head Bracket.....	931-18	2.75	933-18	4.00
3-Way Head Bracket.....	931-19	4.00	933-19	5.50
Dowel Screw.....			933-20	.40

*Discount*.....

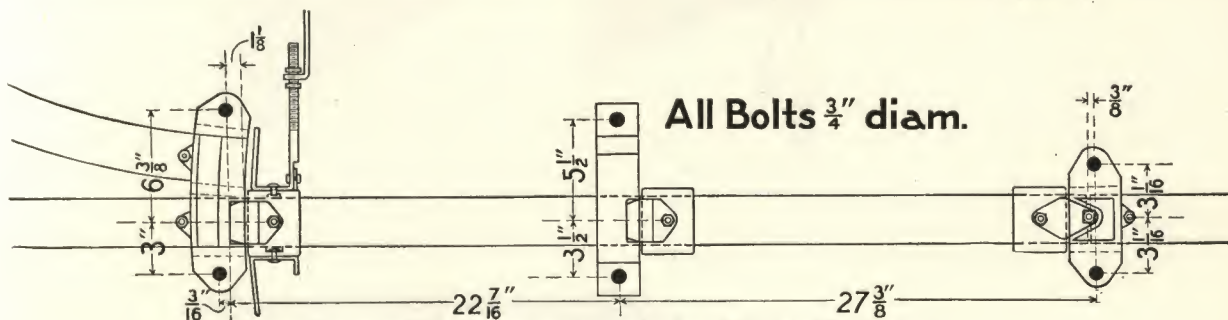


Fig. A-1913—Plan of bolt holes for No. 933 Two-Way Switch

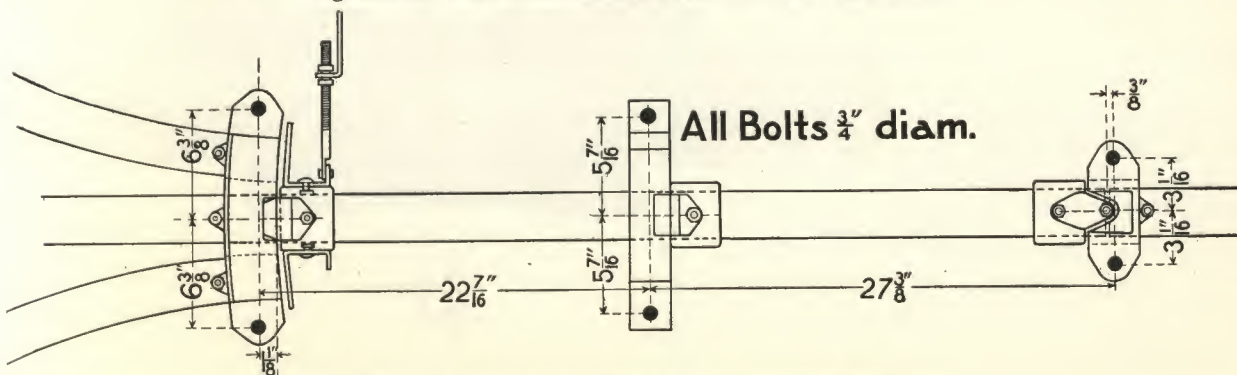
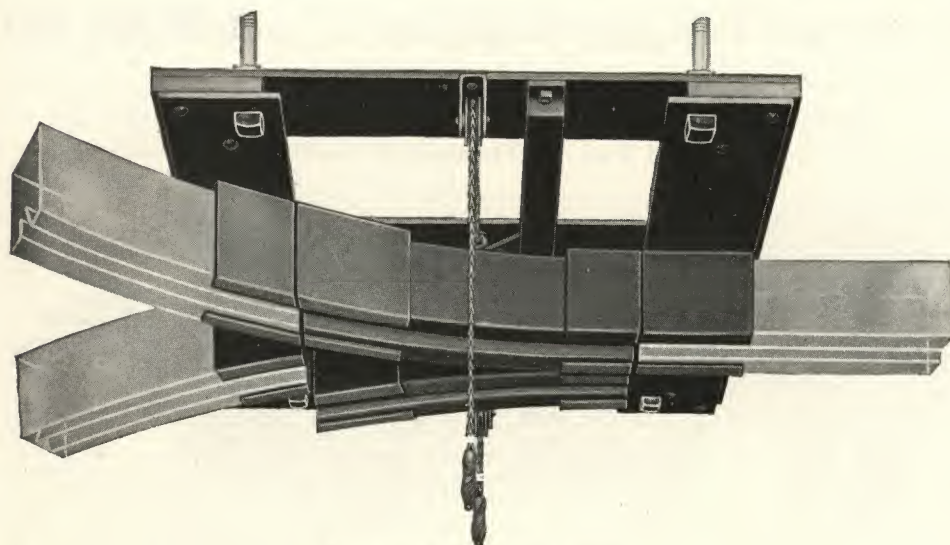


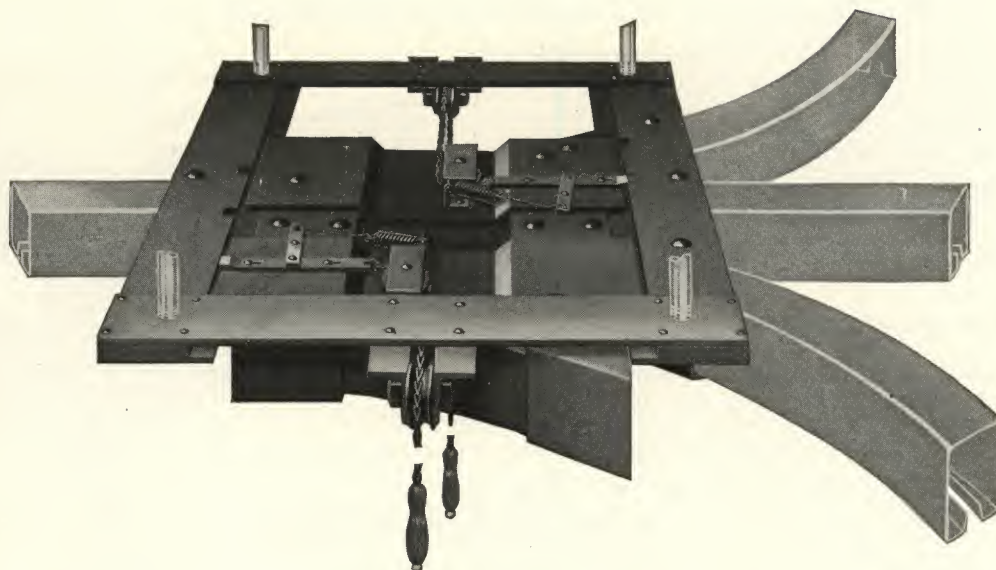
Fig. A-1914—Plan of bolt holes for No. 933 Three-Way Switch



**R-W**  
**No. 932 and 934**  
**Sliding Stub Switches**  
**for**  
**Trolley Track**  
**Conveying Systems**



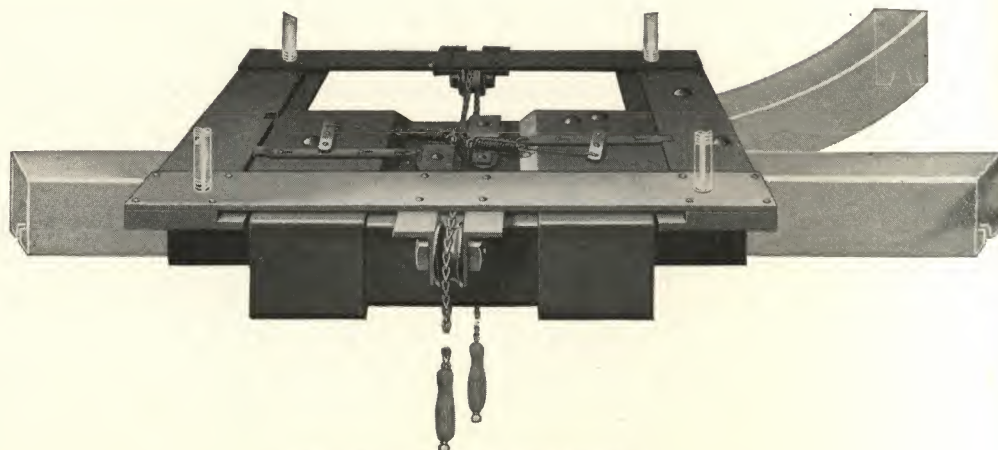
Two-Way Neutral Stub Switch



Three-Way Stub Switch

When Ordering: Give distance from floor to track to determine chain length.

In right hand two-way stub switches, the straight and curved tracks are reversed from positions shown in illustration at the right.



Left-Hand Two-Way Stub Switch



## R-W Nos. 932 and 934 Sliding Stub Switches

(Continued)

Made for Three Sizes of Track

Each Size Made

2-Way Neutral; 2-Way Right or Left Hand;  
or 3-Way

No. 932 x 75 for No. 75 Track

No. 934 x 175 for No. 175 Track

No. 934 x 375 for No. 375 Track

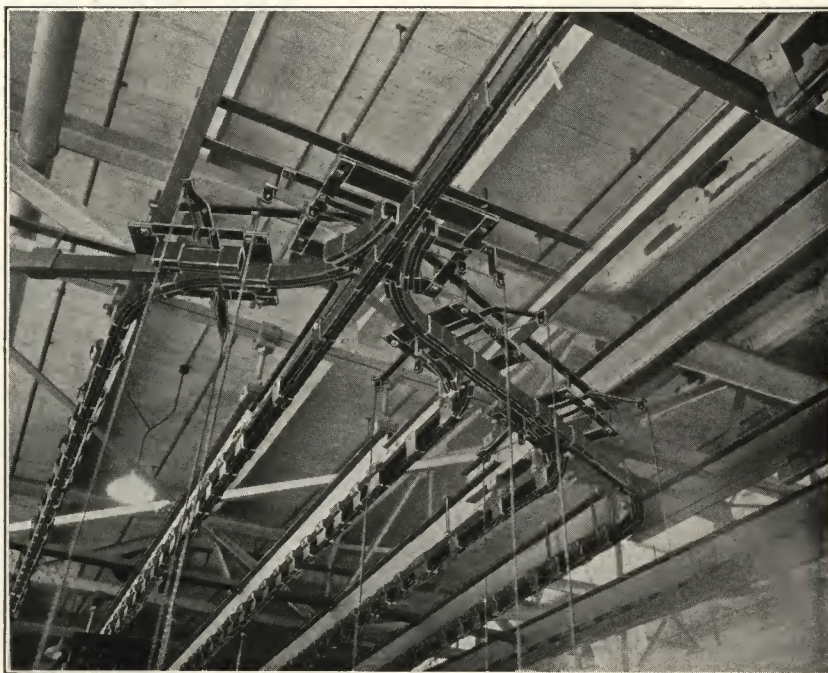


Fig. A-1915—Notice that stub switches may be placed very closely together.

These sliding stub switches are especially designed for use where space does not permit the regular type of switches (as shown on page 332) to be used. These can be placed very close together, see above illustration.

The **2-Way** stub switches are made right hand, left hand and neutral (see illustrations on the opposite page). The minimum radius of curve which can be used in the No. 932 Switch is 24 inches and in the No. 934 Switch 36 inches. The right and left-hand 2-Way Switches each have one short section of curved track and a short section of straight track attached to the movable part of the switch. This movable part slides laterally with respect to the track,

bringing either the straight section or the curved section in line with the ends of the stationary tracks.

The **Neutral** switch operates in a similar manner except that right and left-hand curved tracks are attached to the movable part of the switch instead of one straight or one curved section. Stub switches begin at the end of the curve, therefore they require no more space to install than the curve itself, whereas the switches shown on page 332 require four feet beyond the end of the curve for the hinged switch tongue.

The **3-Way** stub switches have one straight track, one right-hand curved track and one left-hand curved track attached to the sliding member of the switch.

### List Price

Switch	Track No.	Height Over All, Inches	Weights and List Prices										*Switches, Less Curved Tracks	
			Switches Including 90° Curved Tracks											
			2' Radius		2'6" Radius		3' Radius		3'6" Radius		4' Radius			
			Wt. Lbs.	Price	Wt. Lbs.	Price	Wt. Lbs.	Price	Wt. Lbs.	Price	Wt. Lbs.	Price	Wt. Lbs.	Price
932 x 75—2-Way, Right or Left	75	3 1/2	76	\$33.00	78	\$35.00	79	\$37.00	81	\$38.00	82	\$39.50	70	\$27.00
932 x 75—2-Way, Neutral . . .	75	3 1/2	82	39.00	85	43.00	89	47.00	92	49.00	95	52.00	70	27.00
932 x 75—3-Way . . . . .	75	3 1/2	116	52.00	119.	56.00	122	60.00	125	62.00	128	65.00	100	40.00
934 x 175—2-Way, Rt. or Left.	175	4 3/4					109	47.00	112	48.50	115	50.75	90	32.00
934 x 175—2-Way, Neutral . . .	175	4 3/4					128	62.00	134	65.00	140	69.50	90	32.00
934 x 175—3-Way . . . . .	175	4 3/4					164	78.00	170	81.00	177	85.50	120	48.00
934 x 375—2-Way, Rt. or Left.	375	4 3/4					121	48.00	125	49.60	130	52.00	94	32.00
934 x 375—2-Way, Neutral . . .	375	4 3/4					148	64.00	157	67.20	166	72.00	94	32.00
934 x 375—3-Way . . . . .	375	4 3/4					189	80.00	198	83.20	207	88.00	126	48.00

\*Use prices in this column only when curved tracks other than 90° or where curved tracks of a radius different from that shown in the preceding columns are used. Be sure to add the price of the curved tracks required to the prices of the switches given in this column.

Discount .....



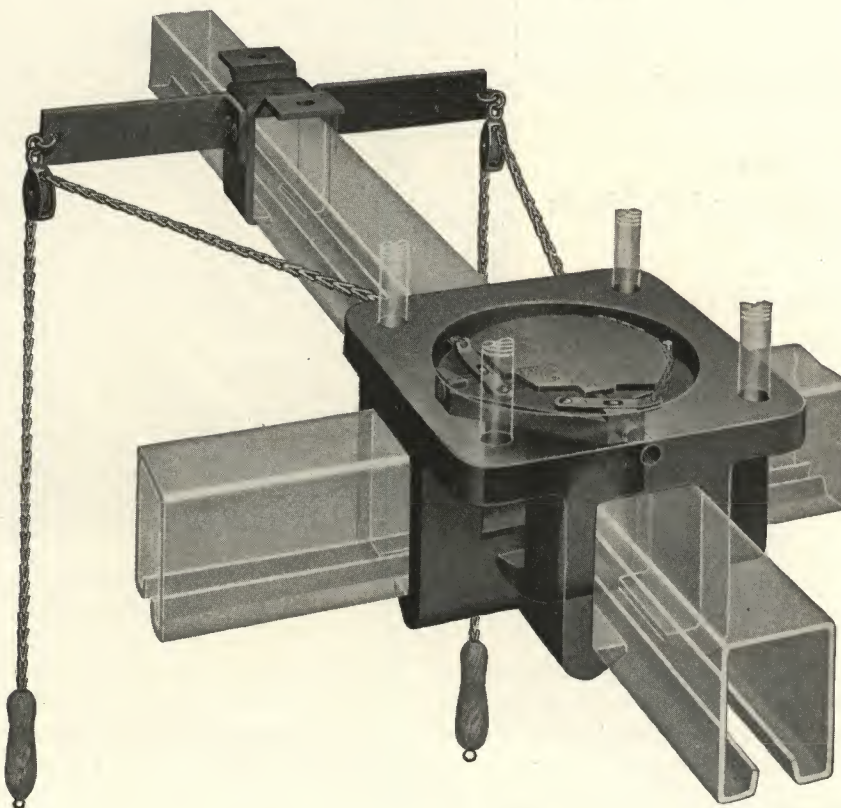
## R-W Nos. 935 and 936 Trolley Track Cross-Overs

Made for Three Sizes of Track

No. 935 x 75 for No. 75 Track

No. 936 x 175 for No. 175 Track

No. 936 x 375 for No. 375 Track



The cross-over should not be confused with the turntable, the difference being that a turntable is used to turn the load, but in a cross-over only a very short section of track is turned at the point of intersection between the four tracks. The cross-over must always be brought into alignment with the track on which the trolley is running before the trolley can enter the cross-over.

The bracket supporting the chain sheaves are included with the cross-over.

The use of the cross-over is recommended as the proper method for connecting tracks crossing one another at right angles. A continuous run of track insures easy operation of carrier under load. Positive stop closes track not in use. Made of heavy grey iron. Finish, black japan. Furnished complete with chain and wood handle grips for operating. Give distance from floor to track to determine chain length.

### List Price

No.	For Track No.	Height, Inches	Gap, Inches	Weight, Lbs.	List Price Complete, Each
935 x 75	75	3½	5	25	\$32.00
936 x 175	175	4¾	4¾	55	40.00
936 x 375	375	4¾	4¾	55	40.00

If heavy track is desired specify No. 375 instead of No. 175.

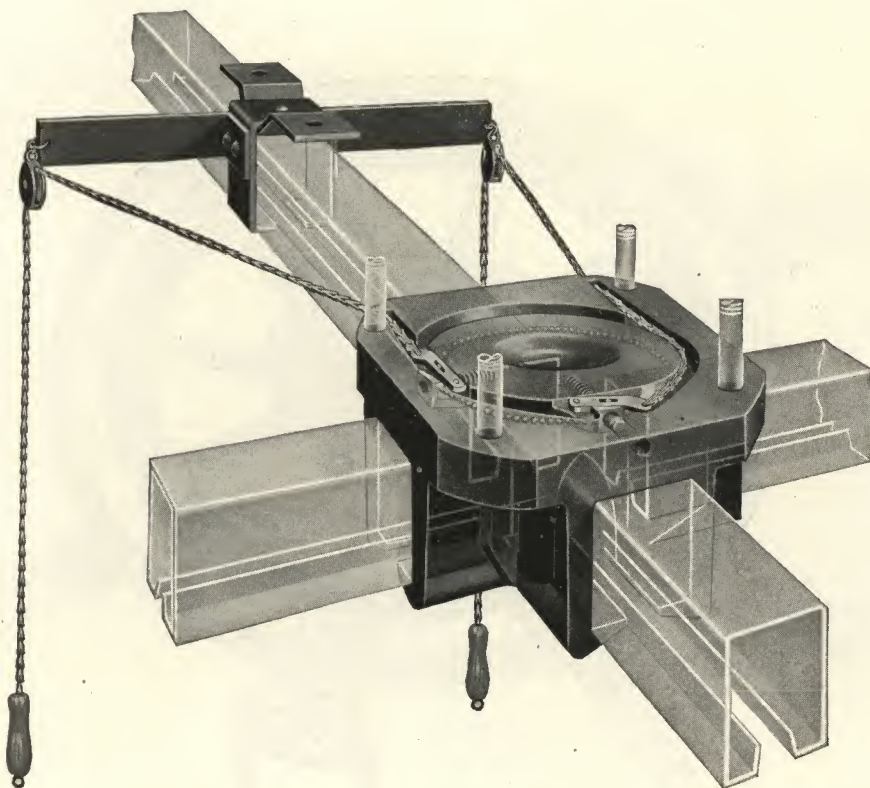
**Note**—Track shown in above illustration is not included in price of cross-over.  
Only made for tracks crossing at right angles.

Discount.....



## R-W No. 941 Trolley Track Turntables

Made for Two Sizes of Track  
No. 941 x 175 for No. 175 Track  
No. 941 x 375 for No. 375 Track



No. 941 Turntable

The turntable illustrated on this page is different from the cross-over illustrated on the preceeding page in that the turntable is designed to turn the carrier with its load. It is made entirely of heavy cast iron and the center part revolves on ball bearings made to fit four wheel carriers only, such as No. 100-4, No. 100-15, No. 100-28, No. 100-34. Capacity 750 pounds. Made for tracks crossing each other at right angles only.

The bracket supporting the center sheaves is included with the cross-over. In ordering give the distance from floor to track so the proper length of chain can be furnished. For larger turntables see page 338. Height from bottom of track to top of turntable  $4\frac{3}{4}$  inches. Length of revolving part 10 inches. Positively locked in each final position. Distance between the ends of the fixed tracks  $10\frac{1}{2}$  inches.

### List Price

No.	For Track No.	Height, Inches	Gap, Inches	Weight, Lbs.	List Price Complete, Each
941 x 175	175	$4\frac{3}{4}$	10	130	\$90.00
941 x 375	375	$4\frac{3}{4}$	10	130	90.00

**Note**—Track shown in above illustration is not included in price of cross-over. Only made for tracks crossing at right angles.

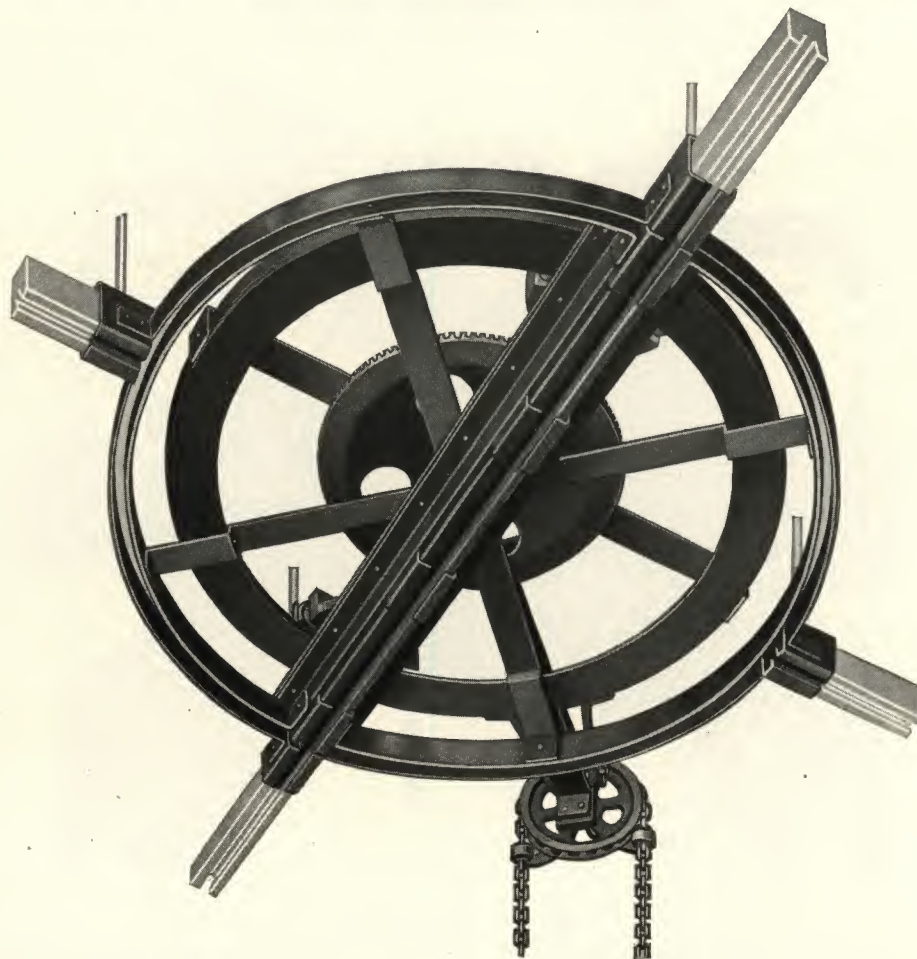


## R-W No. 937 and 938 Trolley Track Turntable

No. 937 x 75 for No. 75 Track

Made in Three Sizes of Track  
No. 938 x 175 for No. 175 Track

No. 938 x 375 for No. 375 Track



The "Over-Way" turntable, trolley-track type, illustrated here, is operated by a continuous hand chain and sprocket which turns the track section through a series of spur and bevel gears. Turntables are built regularly to turn through an angle of 90°. When tracks are brought into alignment, spring actuated plungers engage notches

in the frame to hold the turntable in position. In order to release the catch it is only necessary to give an extra pull on the hand chain. No extra tripping device is required. The ends of the revolving section of the turntable are supported by roller-bearing wheels.

### List Price

No. and Diameter	For Track No.	Height Over All, Ins.	Capacity, Lbs.	Weight, Lbs.	List Price, Each
937-12 inches	75	15½	125	125	*\$160.00
937-21 inches	75	15½	250	225	* 185.00
937-38 inches	75	15½	500	375	* 210.00
938-15 inches	175 or 375	16½	750	175	* 185.00
938-27 inches	175 or 375	16½	1500	275	* 220.00
938-50 inches	175 or 375	16½	3000	450	* 250.00

If heavy track is desired specify No. 375 instead of No. 175.

\*List Price covers turntables with four openings for two runs of track. Prices on additional openings quoted on request.

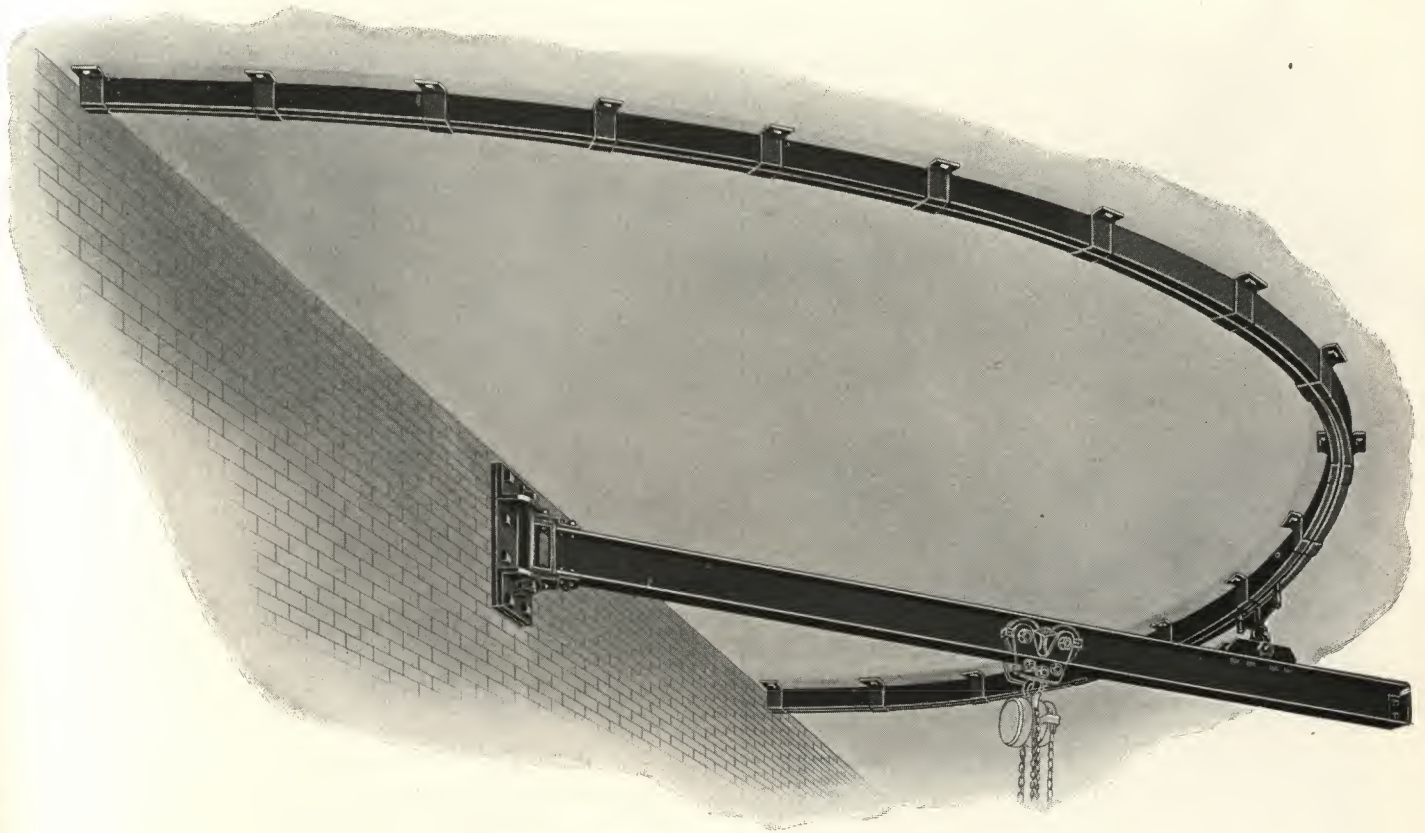
**Note**—When ordering specify diameter, length of carrier used, weight of load to be handled, how many runs of track are to be served and give distance from floor to track to determine chain length.

Discount.....



R-W No. 967

## Jib Crane With Outer End Supported By a Curved Trolley Track



**For Loads Weighing up to 2,000 Pounds**  
If crane for heavier duty is desired see page 376

These jib cranes are used for so many different purposes, by so many different kinds of concerns, that space will not permit of listing the different sizes manufactured.

In fact every crane is made to order, the sizes and lengths of its various parts varying to suit the particular requirements of the individual installation.

The pintle or pivot plate can be attached to either a column or wall.

The Steelbeam, from which the boom is made, can be furnished in any size or length. Its swinging end has stops attached to each side to prevent trolley from running off the boom.

Curved trolley track varies in size and radius according to conditions as does the carrier which runs in it.

Track brackets are furnished as will best suit the style of ceiling construction or superstructure used.

When Ordering State:

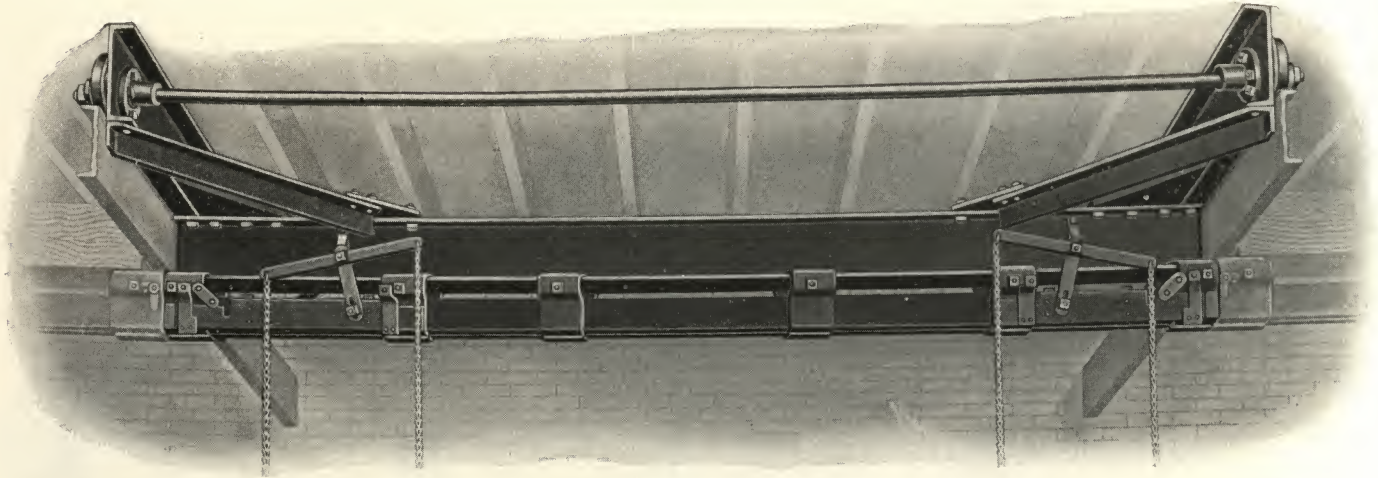
- 1—Kind of objects to be handled.
- 2—Maximum weight of objects to be handled.
- 3—Length of Steelbeam boom.
- 4—Size of Steelbeam boom.
- 5—Radius of curved trolley track and number of degrees.
- 6—Style of superstructure curved track is to be supported from.
- 7—Distance from floor to bottom of boom.
- 8—Distance from top of boom to support for curved track.

Send Sketch of Conditions if Possible.

**Prices On Application**



## R-W No. 972 Trolley Track Transfer Traveling Cranes (Hand Operated)



Especially designed for use where a crane of this style is desired in connection with an Over-Way trolley track carrying system and where conditions do not permit or warrant of many runs of trolley track being erected in a certain area, all of which nevertheless must be quickly reached with the load.

Loads can be transferred from either side of the crane to any track desired. The ends of the trolley track, which are attached to the crane, are fitted with latches to hold the crane in line with the stationary tracks when loads are being transferred and are fitted with automatic stops which prevent the carriers from running out of the ends of the track when crane is not in line with the stationary tracks. Ends of stationary tracks are also fitted with automatic stops to prevent carriers from being accidentally run off the track when the crane is not in position.

### List Price of Cranes

Used in connection with Channel Iron Runways.

Capacity of Crane in Pounds	Bridge Made of No. 175 or 375 Track															
	*10 ft. Span		*12 ft. Span		*14 ft. Span		*16 ft. Span		*18 ft. Span		*20 ft. Span		*22 ft. Span		*24 ft. Span	
	Weight	Price	Weight	Price	Weight	Price	Weight	Price	Weight	Price	Weight	Price	Weight	Price	Weight	Price
1,000	560	\$270.00	570	\$274.00	585	\$280.00	595	\$284.00	610	\$292.00	620	\$299.00	635	\$310.00	645	\$316.00
2,000	570	307.00	580	312.00	595	316.00	605	327.00	620	333.00	630	345.00	645	351.00	655	370.00
3,000	590	360.00	600	364.00	615	370.00	625	381.00	640	390.00	650	403.00	665	410.00	675	429.00

Note—\*Span is the length of track on the crane.

Channel Iron Runways are not included in the above prices, prices for the runways are given on page 379.

Interlocks for use on the ends of the stationary runs of tracks can be furnished at an additional price of \$15.00 each

Give distance from floor to bottom of bridge so that length of chain may be determined.

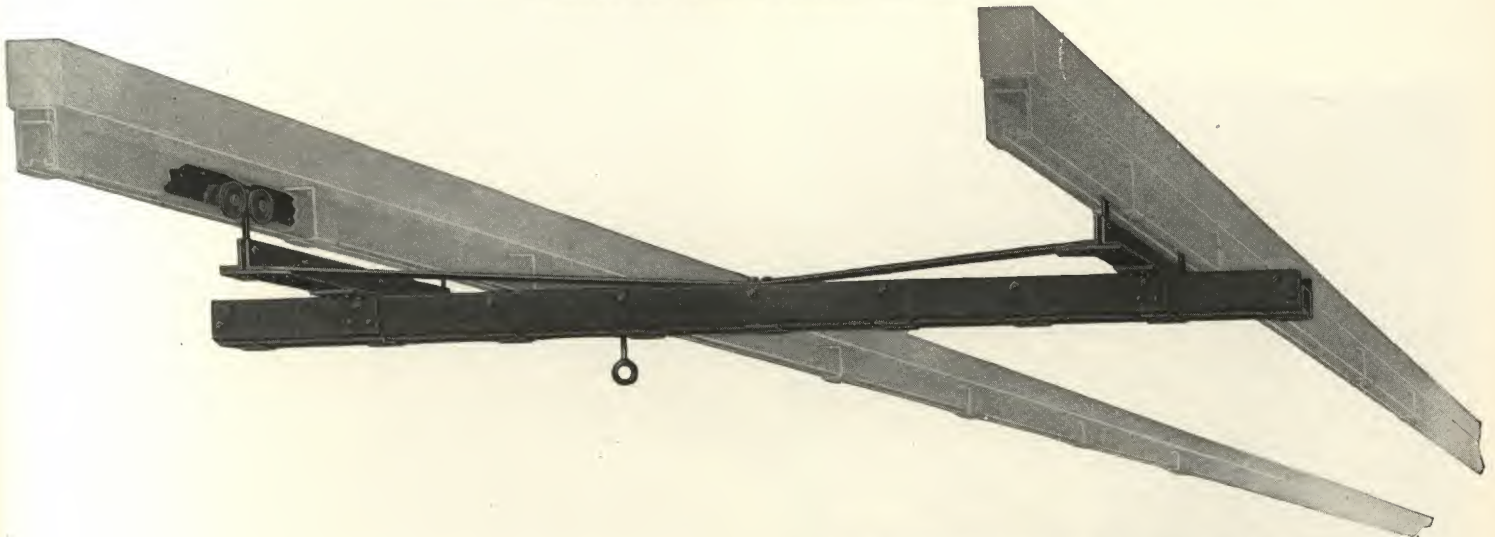
Always send sketch showing lay-out; giving all details and dimensions.

Discount.....



## R-W No. 973 Trolley Track Hand Operated Traveling Cranes

These ARE NOT Transfer Cranes!



The crane illustrated above is a low-priced crane especially designed for use where loads do not exceed 1000 lbs. and the distance between the runway tracks does not exceed ten feet. The track on the bottom of the cross-member of the crane can be made to extend about one foot beyond the craneway tracks, providing a working area twelve feet wide. Always send sketch showing the width of crane desired, points at which the track can be located, and state maximum load to be carried.



Fig. A-1916

### List Price of Cranes

Used in connection with runways of No. 175 and 375 tracks.

Capacity of Crane	Bridge made of No. 75 Track							
	*6 ft. Span		*8 ft. Span		*10 ft. Span		*12 ft. Span	
	Weight	Price	Weight	Price	Weight	Price	Weight	Price
250 lbs.	75 lbs.	\$68.60	90 lbs.	\$72.80	105 lbs.	\$75.60	130 lbs.	\$ 81.20
500 lbs.	82 lbs.	92.40	95 lbs.	96.60	112 lbs.	100.80	150 lbs.	109.20

Bridge Made of Nos. 175 or 375 Track									
250 lbs.	85 lbs.	\$ 75.60	105 lbs.	\$ 79.80	115 lbs.	\$ 84.00	145 lbs.	\$ 92.40	
500 lbs.	100 lbs.	98.00	120 lbs.	105.00	130 lbs.	112.00	160 lbs.	123.20	
750 lbs.	115 lbs.	107.80	135 lbs.	114.80	145 lbs.	123.20	175 lbs.	134.40	
1000 lbs.	130 lbs.	135.80	150 lbs.	142.80	160 lbs.	151.20	190 lbs.	165.20	

\*Span is the length of track on the crane.

Runways can be used in No. 75 track for loads up to 500 lbs. if wanted. Price same as above.

Center distances between runway tracks can be varied to suit requirements. Runways are not included in the above prices. For same see prices of desired trolley track and brackets on pages 345 and 346. Trolley Track Carrier (shown running in bridge) not included in above price.

The truck end carriers, (shown on either end of the bridge) are included in the above prices.

Interlocks for use on the ends of the stationary runs of tracks can be furnished at an additional price. *Discount*.....

*There are many places where a Traveling Crane is an absolute necessity!*



## Trolley-Track Swing-Out Device

R-W No. 980 Automatic Type  
R-W No. 981 Non-Automatic Type



Fig. A-1917

When tracks go through door openings it is best to build the doors in pairs, one door opening to the right and the other to the left. The doors should be notched at the center of the opening to fit around the tracks.

When it is impossible to make the doors in pairs and a single door must be used, swing-out devices as shown in the illustration can be furnished. The swing-out device No. 980 as shown in the illustration is intended for use with automatic closing sliding fire doors. The device is arranged so that the door in closing, trips a lever which is attached to the weight cord. When the lever is tripped, the weights release a latch on the top of the swinging section of track and pull the track open. In the illustration above a swing-out device is shown, in dark, on the nearer side of the wall and another swing-out device, in lighter color, on the farther side of the wall, but if the fire door is on one side of the wall only, it is only necessary to

use the swing-out device on one side of the wall. When the swing-out section of the track is open, a stop closes the mainline of track to prevent the carriers from being run out of the opening.

The No. 981 Non-Automatic Swing-Out Device is built similar to the above except that the weights and trip are omitted, and a hand-chain with pull substituted to release the latch. (Similar to that shown on the No. 977 Non-Automatic Swing-Out Device for I-Beam track at the top of page 373).

Swing-Out devices are made right- or left-hand. A sketch should be furnished with each order showing the way the door or doors slide, also the distance from the top of the opening to the top of the track (minimum distance; non-automatic type  $3\frac{1}{4}$  inches, automatic type 6 inches).

### List Price

No. 980 x 75 Automatic Trolley-Track Swing-Out Device (for one side of wall only).....	\$100.00
No. 980 x 175 or 375 Automatic Trolley-Track Swing-Out Device.....	100.00
No. 981 x 75 Non-Automatic Trolley-Track Swing-Out Device.....	75.00
No. 981 x 175 or 375 Non-Automatic Trolley-Track Swing-Out Device.....	75.00

**Note**—Price includes Swing-Out Device for **One side of wall only**. If swing-out device is required for both sides of wall the price will be doubled.

Discount.....

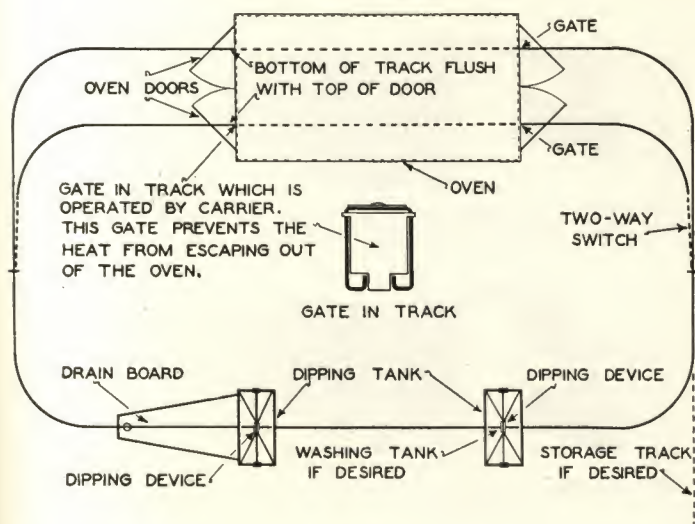


R-W

## Dipping Devices and Lowerators for Trolley or I-Beam Systems



Fig. A-1918—Notice dipping device and tank at right. Bake Oven at left



PLAN OF OVERWAY SYSTEM FOR ENAMELING ROOM

Fig. A-1919—Schematic plan showing location of dipping device, drain board, bake oven, and storage track of a small installation.

A Dipping Device is used for dipping material of various sorts into a tank of cleaning solutions or paint. Is also used for lowering material into pickling baths.

Another use of this equipment is that of a Lowerator, which lowers material from a conveying system on one floor to that on a lower floor.

Dipping Devices are of two types: One to be used in connection with trolley track; the other for use with I-Beam or Steelbeam track.

Either one of these types may be equipped either with or without the vertical guide tracks, depending upon the nature of the required work to be performed.

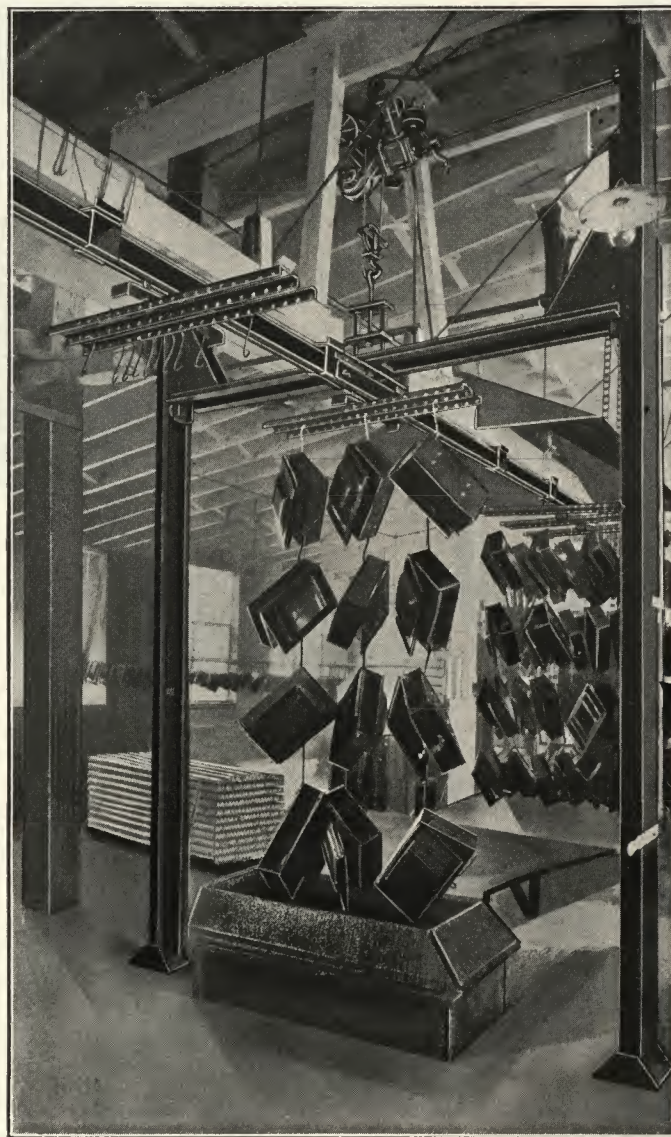


Fig. A-1920—Metal boxes about to be dipped. See drain board in rear

The motive power for operating the device; that of lowering and raising the load, may be either electric or pneumatic, depending upon the customers desires.

As every device must be built to meet special conditions it is not advisable to standardize them or quote list prices.

Our engineering department has had much experience with dipping and lowering devices. They stand ready and willing at all times to prepare layouts, specifications and prices, gratis, for any installation of the kind you may have in mind.

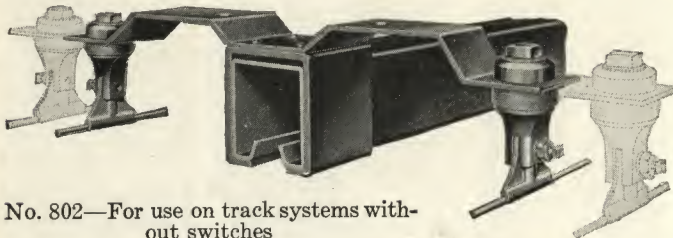


## Current Conductors for Trolley Track

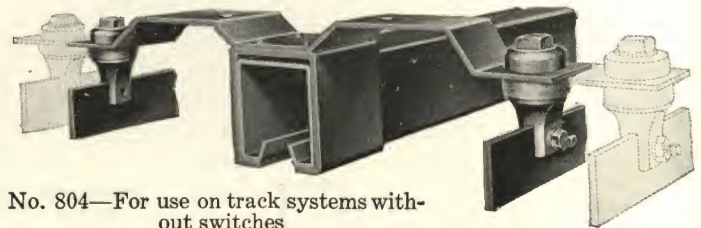
Four types of current conductors to be used in connection with electric hoists operating on our No. 175 or No. 375 trolley tracks are illustrated on this page. Two of the types are for supporting copper wire conductors and two types are for supporting steel bar conductors. The two upper illustrations show types of conductors suitable only for use on track systems without switches. The conductors on the two lower illustrations are dropped low enough so that the current collectors will pass beneath the tracks when the trolley operates over curves at switch points. These two types of collectors are intended for use with track systems with switches but the conductors are omitted along the curves immediately adjoining the switches, which means that no hoisting can be done at these points. Wire conductors are suitable for straight tracks only, but the flat bars can be used with either straight or curved tracks. When track systems consist of both straight and curved tracks, it is possible to use the wire conductors along the straight track and flat bars around the curves.



Fig. A-1921—An electrified conveying system is a real time saver!



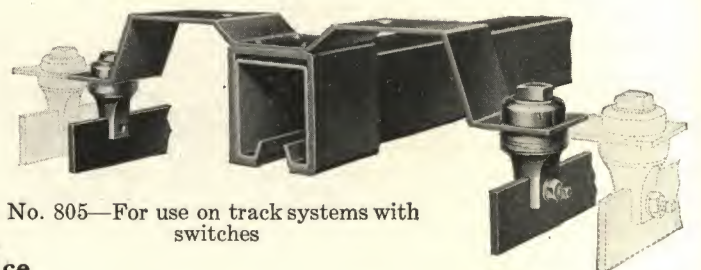
No. 802—For use on track systems without switches



No. 804—For use on track systems without switches



No. 803—For use on track systems with switches



No. 805—For use on track systems with switches

### List Price

		Complete with No. 802	Complete with No. 804
No. 800 Wire Clamp only, (see illustration on page 370), weight, 6 oz. Each.....	\$ .40	Insulator and Insulator and	Wire Holders Bar Holders
No. 800 Insulator and Holder only (for flat bar conductor), weight, 1 lb. Each.....	1.10	5.90	\$5.20
No. 800 Insulator and Holder with wire clamp (for wire only) weight, 1 1/3 lb. Each.....	1.45	7.60	6.55
No. 802 or 804 Combined track bracket with insulator support only for two conductors, weight, 7 1/8 lbs. Each.....	3.00	9.25	7.85
No. 802 or 804 Combined track bracket with insulator support only for three conductors, weight, 9 3/4 lbs. Each.....	3.25	6.25	5.45
No. 802 or 804 Combined track bracket with insulator support only, for four conductors, weight, 11 1/2 lbs. Each.....	3.45	7.80	6.75
No. 803 or 805 Combined track bracket with insulator support only, for two conductors, weight, 7 1/8 lbs. Each.....	3.25	9.50	8.10
No. 803 or 805 Combined track bracket with insulator support only, for three conductors, weight, 9 3/4 lbs. Each.....	3.45		
No. 803 or 805 Combined track bracket with insulator support only, for four conductors, weight, 11 1/2 lbs. Each.....	3.70		
End Brackets with Wire Takeups are same price as Nos. 802 and 803 complete with insulators and holders. When both Wire and Bar conductors are used on the same system, special connections between the wires and bars must be provided. Such connections will be quoted on when complete requirements are given.			
No. 4 Hard Copper Wire, per ft., 2 oz.....	.06		
1/4 x 2 Straight flat conductor bar, weight, 2 1/2 lbs., per ft., punched.....	.25; not punched.....		
1/4 x 2 Curved flat conductor bar, weight, per ft., 2 1/2 lbs., punched.....	.92; not punched.....		
Joints for flat bar conductor, weight, 1 1/4 lb. Each.....	.92		
Terminal lugs for No. 4 copper wire. (See illustration on page 370). Each.....	.14		

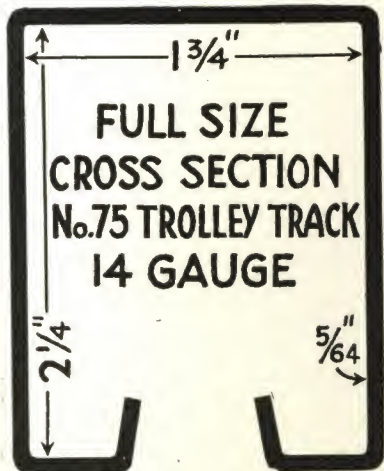
### Discount

**Note**—Brackets for supporting flat bar conductor must not exceed 8' centers on straight runs or 4' centers on curves. Each 90° curve must be supported by at least three brackets. Maximum distance between supports for copper wire is 30', but a spacing not to exceed 20' will usually give best results.



## Trolley Track for Conveying Equipment

Made in Two Sizes and Three Gauges, Either Straight or Curved



No. 75 Track

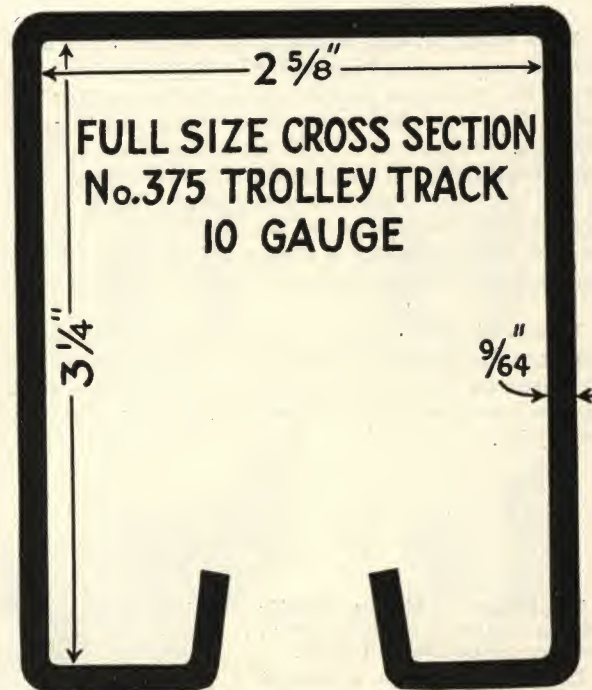


**Straight Track**  
Straight track furnished in lengths up to ten feet in one piece.

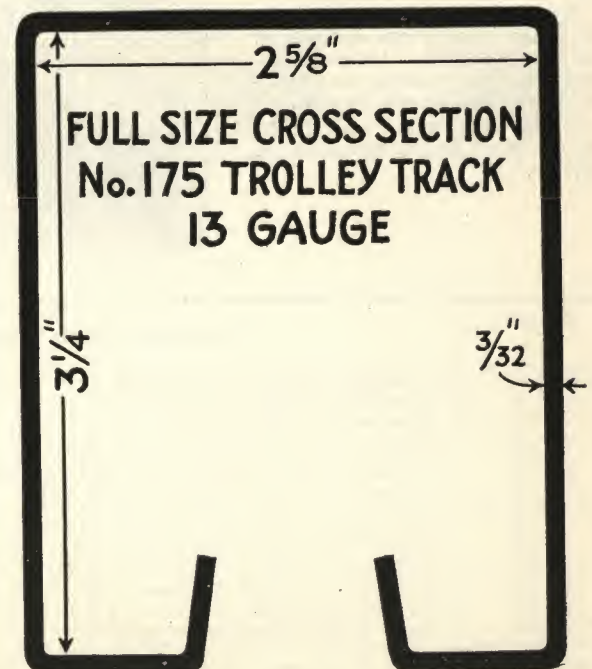


**Curved Track**

No. 75 Track can be curved to two foot radius or larger: No. 175 Track to 2 foot 6 inch radius or larger: No. 375 Track to three foot radius or larger.



No. 375 Track



No. 175 Track

THE material for all "Over-Way" trolley tracks is made to our specifications from a special analysis steel which from exhaustive tests has proven to be the strongest and most efficient for the purpose.

Whenever possible, it is advisable to use curves of 4 feet or larger radius for heavy loads. No. 75 track is recommended only for very light loads and should never be used for loads exceeding 500 lbs. Nos. 175 and 375 tracks may be used for loads up to 3,000 lbs., but if the service is frequent or severe, track No. 175 is recommended for loads up to 2,000 lbs. and No. 375 for loads over 2,000 lbs. Sixteen wheel carriers for No. 175 or 375 tracks should not be used on curves of less than 42-inch radius.

### Number of Feet in Track in 90 Degree Curve

Radius	Feet	Radius	Feet
2' 0"	3.14	6' 0"	9.42
2' 6"	3.92	6' 6"	10.31
3' 0"	4.71	7' 0"	10.99
3' 6"	5.49	7' 6"	11.78
4' 0"	6.28	8' 0"	12.56
4' 6"	7.07	8' 6"	13.35
5' 0"	7.85	9' 0"	14.13
5' 6"	8.63	10' 0"	15.70

### List Price

Track No.	Gauge	Weight Per Foot, Lbs.	Straight Per Foot	Curved, Per Foot
75	14	2	\$ .30	\$2.00
175	13	4	.72	3.00
375	10	5 3/4	.80	3.20

Discount.....

**R-W Track is Good Track—We Acknowledge It!**

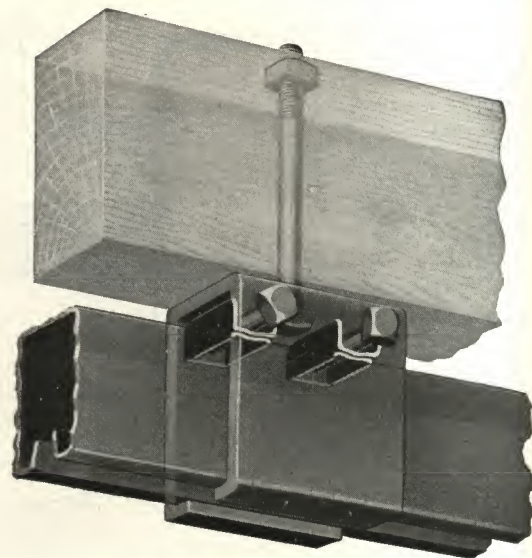


## R-W OveR-Way Trolley Track Brackets

There are four general types of brackets used to support OveR-Way Trolley Tracks—plain ceiling brackets, parallel ear brackets, cross-ear brackets and I-Beam brackets.

Plain ceiling brackets should always be used when attaching to wood super-structure, the top of which is accessible for tightening the bolt. These brackets which are of the No. 18, 45 and 50 styles require but one bolt. If track is attached to a wood beam, the top of which is not accessible for tightening the bolt, use the parallel ear style brackets such as the No. 7, 44 and 49 for straight tracks. These brackets can be attached to a comparatively narrow beam. If the beam is wide enough it is best to use the cross-ear brackets of the No. 5, 43 and 48 styles. The cross-ear brackets should always be used to support curves rather than the parallel ear brackets, because of the difficulty of sliding the curved track through the brackets. If the super-structure is composed of I-Beams, use brackets of the styles 41, 42 and 47.

Patented joint brackets are made to grip the end of each piece of track firmly and bind it to the bottom of the brackets so both tracks will line up perfectly at the joint. End brackets are provided with a bolt through the track and bracket to stop the carriers from running out of the end of track. Always use joint brackets at every track joint.



Patented  
Fig. A-1922—Trolley-Track Bracket, showing application of wedges which hold ends of track tightly against floor of bracket, making a smooth runway for wheels of carrier.

**Important**—Always specify catalog number of track for which brackets are desired and finish.

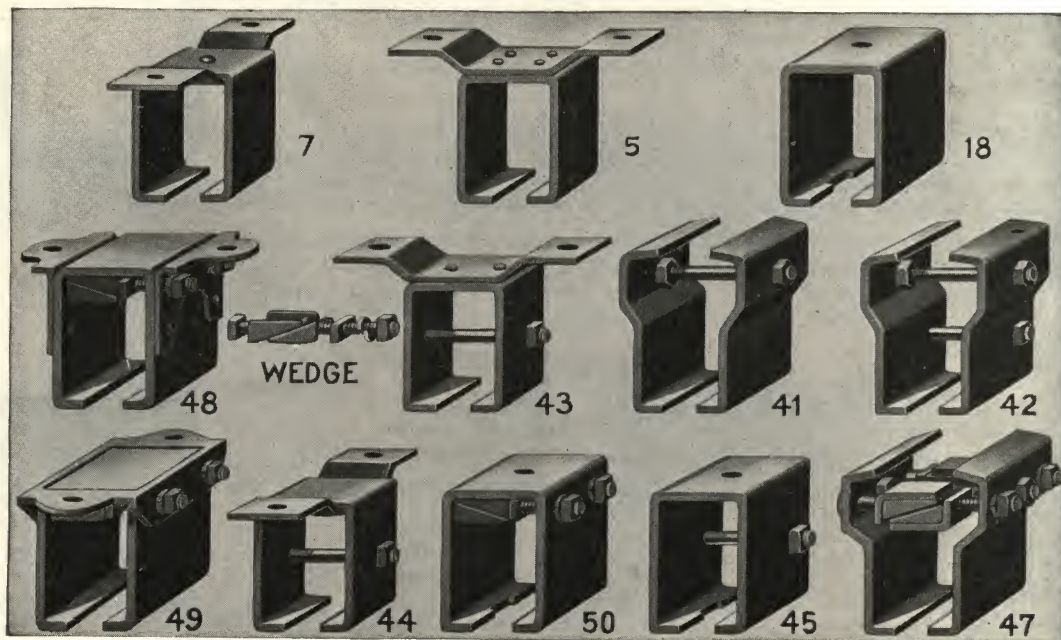
**Example**—If a No. 5 bracket for No. 75 track is wanted, show as follows: 5x75; if for No. 175 track, show 5x175 bracket, etc.

Joint brackets with wedge should be used on every track joint to insure proper results.

For galvanized brackets add 15% to List Prices below on No. 75 track, and 20% on No. 175 and 375 track.

When ordering I-Beam Brackets, always specify size and weight per foot of I-Beam. Unless otherwise specified, brackets for Standard Light Sections will be sent.

Prices on special brackets to meet any conditions furnished on request.



List Price

Bracket No.	Description—Black Enamel Finish	For No. 75 Track	For No. 175 or No. 375 Tracks
5	Cross ear ceiling center bracket.....	\$ .24 each 1½ lbs.	\$ .66 each 4 lbs.
7	Parallel ear ceiling center bracket.....	.24 each 1 lbs.	.66 each 4 lbs.
18	Plain ceiling center bracket.....	.24 each 1½ lbs.	.66 each 4½ lbs.
41	I-Beam center bracket—give I-Beam size.....	1.00 each 2 lbs.	1.50 each 5 lbs.
42	I-Beam end bracket with bolt—give I-Beam size.....	1.00 each 2¼ lbs.	1.50 each 5½ lbs.
43	Cross ear ceiling end bracket with bolt.....	.60 each 1½ lbs.	.90 each 4½ lbs.
44	Parallel ear ceiling end bracket with bolt.....	.60 each 1½ lbs.	.90 each 4½ lbs.
45	Plain ceiling end bracket with bolt.....	.60 each 1½ lbs.	.90 each 4½ lbs.
47	I-Beam joint bracket with wedge—give I-Beam size.....	2.50 each 3 lbs.	3.00 each 8 lbs.
48	Cross ear ceiling joint bracket with wedge.....	1.50 each 4 lbs.	2.70 each 8 lbs.
49	Parallel ear ceiling joint bracket with wedge.....	1.50 each 4 lbs.	2.70 each 8 lbs.
50	Plain ceiling joint bracket with wedge.....	1.35 each 3 lbs.	2.25 each 6½ lbs.

Always mention size of I-Beam. For brackets to fit I-Beams exceeding 9 inches, price will be furnished on application.

Discount.....



## Dimensions of R-W Over-Way Trolley Track Brackets

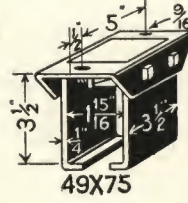
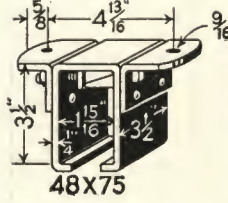
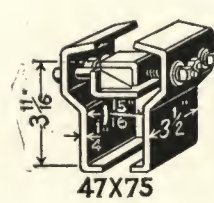
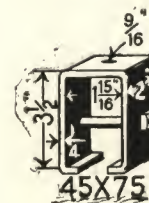
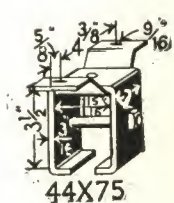
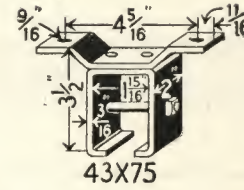
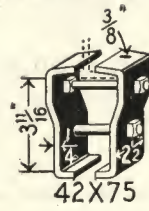
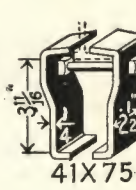
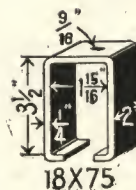
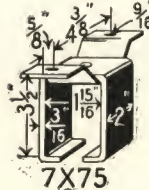
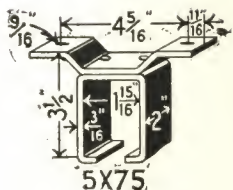
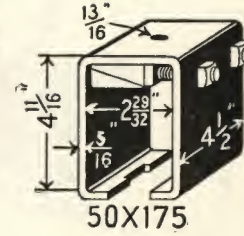
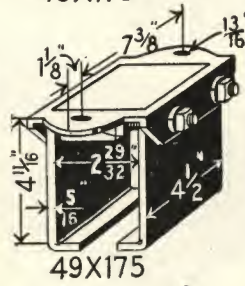
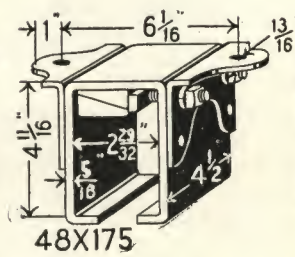
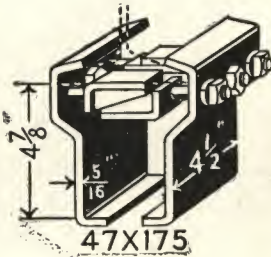
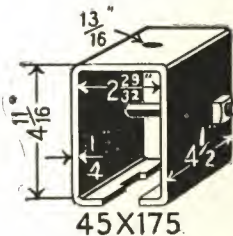
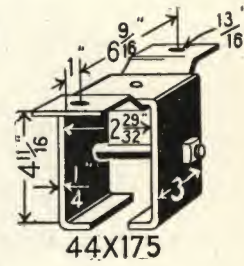
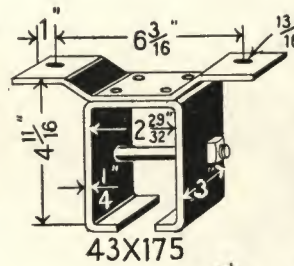
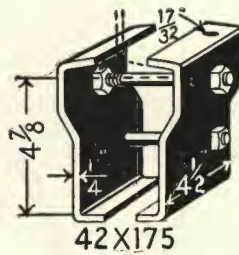
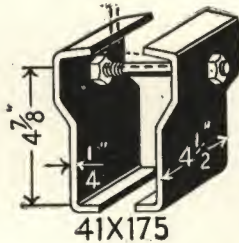
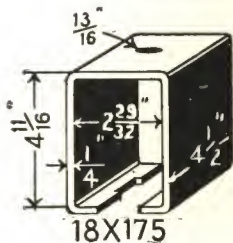
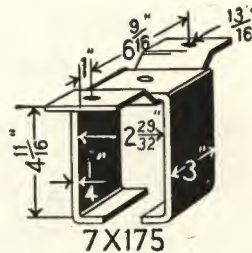
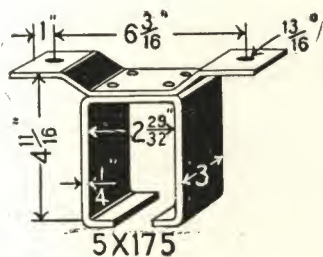


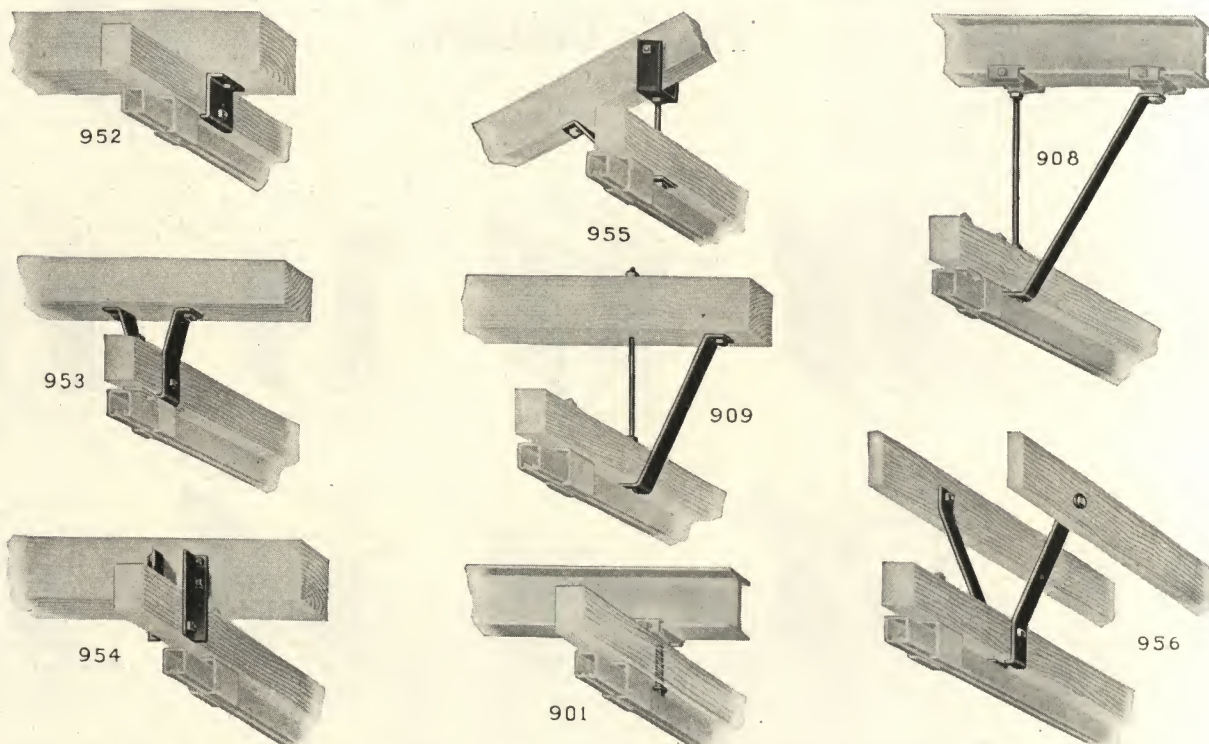
Table Showing Spacing of Brackets According to Load

Size of Carrier	Track No.	Load on Carrier									
		125 Lbs.	250 Lbs.	500 Lbs.	750 Lbs.	1000 Lbs.	1250 Lbs.	1500 Lbs.	2000 Lbs.	2500 Lbs.	3000 Lbs.
4 Wheel	75	36"									
8 Wheel	75	42"	30"								
16 Wheel	75	48"	36"	24"							
4 Wheel	175	42"	36"	18"	12"						
	375	60"	54"	30"	18"						
8 Wheel	175		45"	27"	21"	17"	15"	12"			
	375		60"	48"	32"	24"	21"	18"			
16 Wheel	175			40"	34"	30"	27"	21"	18"	15"	12"
	375			54"	48"	42"	36"	30"	24"	21"	18"

Note—Wedge joint brackets must be used at every joint. Spacing in above table apply to "Over-Way" Systems under heavy or continuous service.



## Drop Brackets For Suspending Trolley Track Superstructure



Illustrations will meet almost all conditions. We will gladly make erecting blue prints covering both overhead carrying track and superstructures on application. Erecting blue prints of track and brackets always sent with material. No. 910 Universal I-Beam Clamps shown with No. 901 and 908 are not included in price of brackets.

### List Price

Bracket Number	Diameter of Attaching Bolts				Diameter of Rod for Loads up to				List Price—Clamps Not Included							
									12-inch Drop or Less				For Each Additional 12"			
	500 Lbs.	1000 Lbs.	2000 Lbs.	3000 Lbs.	500 Lbs.	1000 Lbs.	2000 Lbs.	3000 Lbs.	500 Lbs.	1000 Lbs.	2000 Lbs.	3000 Lbs.	500 Lbs.	1000 Lbs.	2000 Lbs.	3000 Lbs.
901	.....	.....	.....	.....	5/8"	3/4"	7/8"	1 1/8"	\$ .54	\$ .60	\$ .72	\$1.14	\$ .12	\$ .12	\$ .18	\$ .30
908	.....	.....	.....	.....	5/8"	3/4"	7/8"	1 1/8"	1.55	1.75	2.00	2.90	.24	.30	.48	.72
909	1/2"	1/2"	5/8"	5/8"	5/8"	3/4"	7/8"	1 1/8"	1.55	1.75	2.00	2.90	.24	.30	.48	.72
952	1/2"	5/8"	3/4"	7/8"	.....	.....	.....	.....	1.80	3.50	4.20	5.40	.48	.60	.84	1.25
953	1/2"	5/8"	3/4"	7/8"	.....	.....	.....	.....	1.80	3.50	4.20	5.40	.48	.60	.84	1.25
954	1/2"	1/2"	5/8"	3/4"	.....	.....	.....	.....	1.90	2.25	2.50	3.10	.36	.60	.60	.84
955	1/2"	*3/4"-1/2"	*7/8"-5/8"	*7/8"-5/8"	5/8"	3/4"	7/8"	1 1/8"	2.25	2.50	2.90	3.80	.24	.30	.48	.72
956	1/2"	3/4"	7/8"	1 1/8"	.....	.....	.....	.....	1.80	3.40	4.20	5.40	.48	.60	.84	1.25

\*First figure is diameter of bolt through clip and beam and second figure is diameter of brace bolt.

†Two bolts are used through clip and beam.

The Drop is the distance between the under side of the track supporting beam and the under side of the beam from which it is suspended.

### Directions for Ordering

In ordering brackets of the No. 909, 953, 954 and 952 style, always state the size of the beam to which the support is attached and the distance from the bottom of the track beam to the bottom of the support beam.

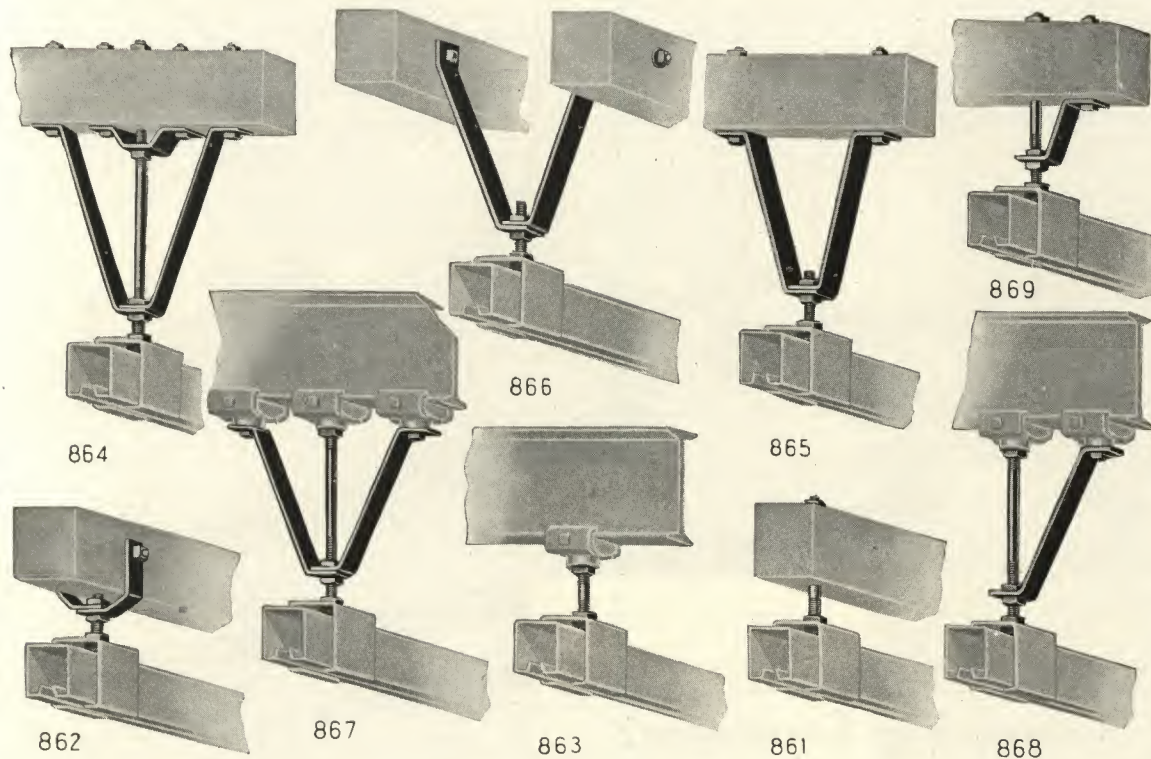
In ordering brackets of the No. 956 style, always state the size of the beam to which the track is attached, the size of the beams to which the supports are attached, the distance between the support beams and the distance from the bottom of the track beam to the bottom of the support beams.

In ordering brackets of the No. 955 style always state the size of the beam to which the track is attached, the size of the beam to which the support is attached, the distance from the bottom of the track beam to the bottom of the support beam and state if the support beam is horizontal or at an angle as shown in the illustration. If at an angle send sketch fully dimensioned showing the angle.

In ordering brackets of the No. 901 and No. 908 styles, always state the size of the wood beam to which the track is attached, the size and weight of the I-Beam and the distance from the bottom of the track beam to the bottom of the I-Beam.



## Drop Brackets For Suspending Trolley Track



The Drop Brackets illustrated above will meet practically all conditions. We will gladly make erecting blue prints covering overhead carrying track upon application. Erecting blue prints of track and brackets always sent with material.

### List Price

Bracket Number	Diameter of Attaching Bolts for		Diameter of Supporting Rods for		List Price . . . Track Brackets Not Included			
					12" Drop or Less		Each Additional 12"	
	No. 75 Track	No. 175 or 375 Track	No. 75 Track	No. 175 or 375 Track	No. 75 Track	No. 175 or 375 Track	No. 75 Track	No. 175 or 375 Track
861			1/2"	3/4"	\$ .48	\$ .60	\$ .10	\$ .12
862	1/2"	5/8"	1/2"	3/4"	1.60	1.80	.10	.12
863			1/2"	3/4"	.48	.60	.10	.12
864	1/2"	1/2"	1/2"	3/4"	1.90	2.10	.36	.36
865	1/2"	1/2"			1.60	1.80	.40	.48
866	1/2"	1/2"			1.60	1.80	.40	.48
867			1/2"	3/4"	1.90	2.10	.36	.36
868			1/2"	3/4"	1.40	1.55	.24	.24
869	1/2"	1/2"	1/2"	3/4"	1.40	1.55	.24	.24

### Directions For Ordering

Discount.....

In ordering Drop Brackets of the No. 861, 862, 864, 865 and 869 style, always state the size of the beam to which the bracket is attached and the distance from the bottom of the trolley track to the bottom of the beam.

In ordering Drop Brackets of the No. 866 style, always state the size of the beams to which the bracket is attached, the distance between the beams and the distance from the bottom of the trolley track to the bottom of the beams.

In ordering Drop Brackets of the No. 863, 867 and 868 styles, always state the size and weight of the I-Beam and the distance from the bottom of the trolley track to the bottom of the I-Beam.





## Steelbeam Conveying Equipment

**T**HE saving of labor, time, floor space and money through the installation of Overhead Steelbeam Conveying Equipment is of extreme importance to help facilitate production.

No matter how big a Steelbeam System is, it pays for itself within six months or a year and after that it pays dividends of 100 to 300 per cent annually.

Whenever it is necessary to move loads weighing from  $\frac{1}{4}$  to 4 tons there you will find a real need for a Steelbeam System.

Over-Way Steelbeam Conveying Equipment provides for the economical handling of any kind of material—raw, finished or in process.

Our equipment has withstood, in actual service, almost unbelievable rough usage. Not only we but thousands of our customers guarantee our Steelbeam Conveying Equipment unqualifiedly.

Place your Overhead Conveying Problems in the hands of our Engineering Department. It will not oblige you in any way.





## Steelbeam Conveying Equipment

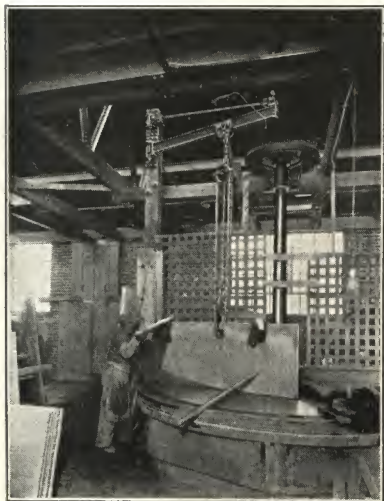


Fig. A-1922—Crane above marble rubbing bed



Fig. A-1923—Unwieldy objects handled expeditiously

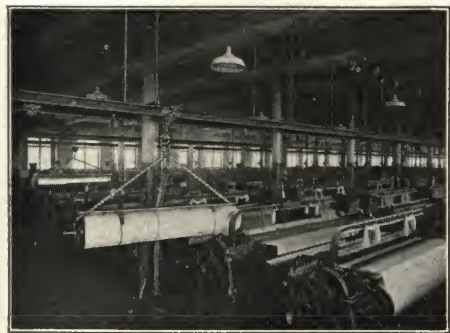


Fig. A-1924—Scene in a cotton mill



Fig. A-1925—Pouring Small Castings



Fig. A-1926—Heavy work made easy



Fig. A-1927—Plate glass handled safely

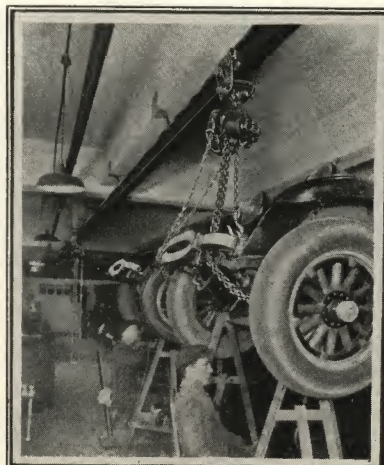


Fig. A-1928—Awkward work simplified

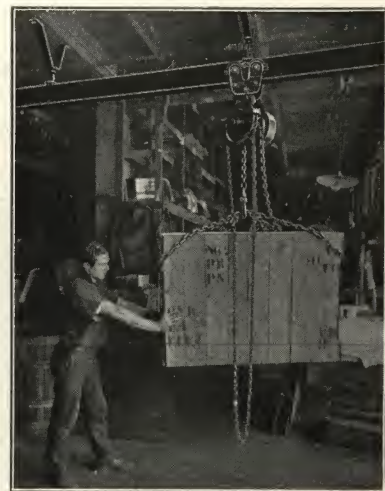


Fig. A-1929—A combination hard to beat



Fig. A-1930—One man moving two motors



Fig. A-1931—Trucks quickly unloaded



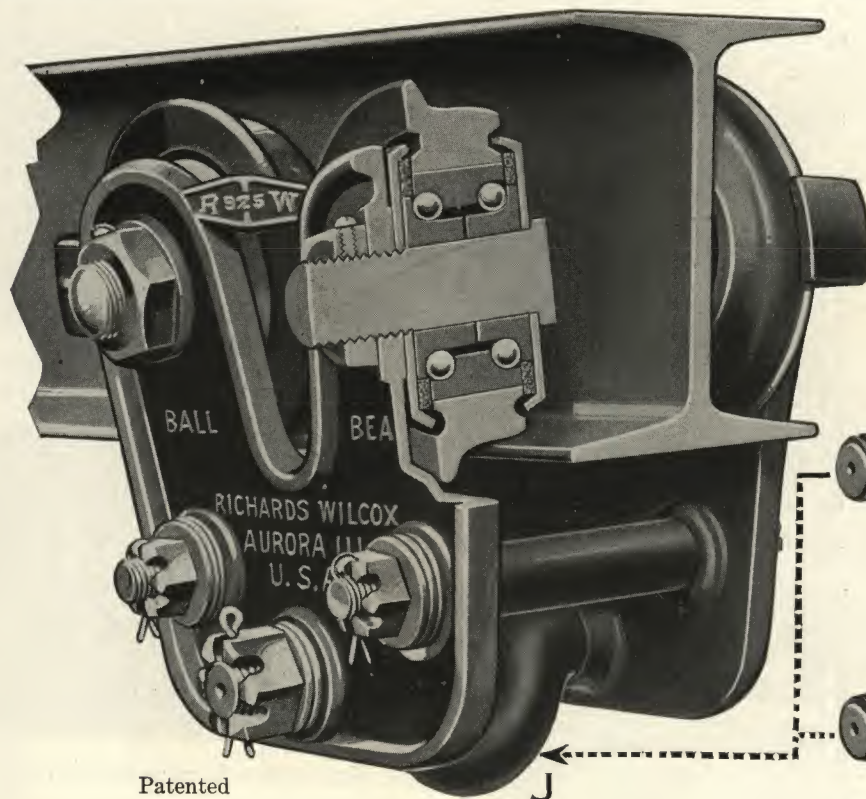
Fig. A-1932—One man instead of six



R-W No. 925

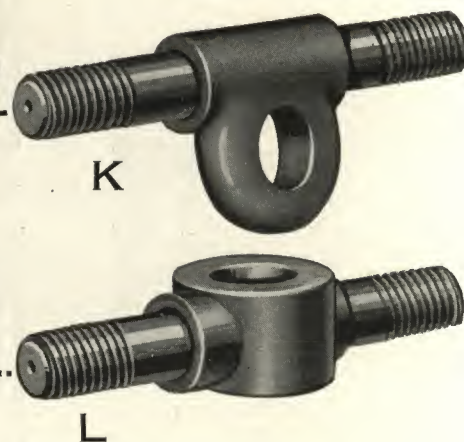
## Steelbeam Ball-Bearing Trolleys

Will Operate upon Standard I-Beam Track or Bethlehem I-Beam as well as upon R-W Steelbeam

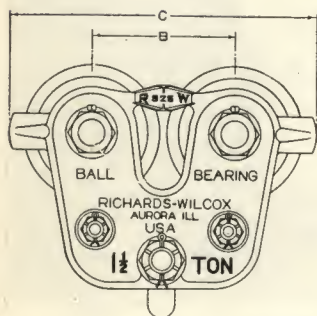


Made in Seven Sizes  
Each Trolley  
Adjustable to Three  
Sizes of Steelbeams  
or I-Beams.

Can also be made  
to fit  
Bethlehem Beams



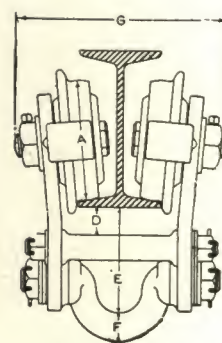
Patented



For Dimensions  
See Table below

High test malleable iron side plates and yoke. Wheels of hard grey iron with treads crowned to give minimum friction and chilled to give maximum hardness and minimum wear. Short wheel base operates easily on curves. Combination radial and thrust bearings, ball races are ground. High duty "AA" grade chrome alloy steel balls. Felt washers prevent dust and dirt reaching bearings and provide perfect lubrication, as felt absorbs oil from oil hole and transmits it to bearings continually. Spreader rods set loose in oversized holes so that trolley sides can pivot about the load pin, insuring even distribution of load on all four wheels under all conditions. Bumpers on the end of frame sides prevents trolleys from damaging wheel flanges when running together.

Yoke J is the one that regularly comes with trolleys that fit tracks listed in second column of table. When trolleys are made for large sized beams, yoke K is furnished. L is a special yoke furnished when swivel Pendant Bolt connections to the trolley are wanted.



For Dimensions  
see Table below

### Dimensions and List Prices

No. and Capacity of Trolley Tons	*Standard Size of Steelbeam Inches	Width of Wheel-Tread, Inches	Diam. of Wheels on Tread, Inches A	Wheel Centers Inches, B	Length Over All Inches, C	Clearance Below Steelbeam Inches, D	Dist. from Bottom of Steelbeam to Yoke, Inches, E	Diameter of Yoke, Inches, F	Width Over All, Inches, †G	Pull Required to Start Full Load, Lbs.	Weight, Lbs.	List Price, Each
925—1/4	4, 5, 6	5 5/8	2 5/8	3 5/8	8 1/4	3/4	3	5/8	6 1/4	10	22	\$22.00
925—1/2	5, 6, 7	5 3/4	3 3/4	4 5/8	10 1/4	1	3 1/2	5/8	7 1/2	17	38	25.00
925—1	6, 7, 8	5 1/2	4 5/8	5 3/8	12 1/4	1 1/4	4	1 1/4	8	37	62	32.00
925—1 1/2	7, 8, 9	1 3/8	5 1/2	6 3/8	14 1/2	1 3/4	4 1/2	1 3/4	9 1/2	45	84	40.00
925—2	8, 9, 10	1 5/8	6 3/8	7 5/8	16 3/4	1 3/4	5	1 1/4	10 1/4	50	116	48.00
925—3	9, 10, 12	1 5/8	7 3/8	9 5/8	19	1 3/4	5 1/2	1 1/2	11 1/4	75	170	64.00
925—4	10, 12, 15	1 1/2	7 3/8	10	21	1 3/4	6	1 1/2	12 1/4	95	210	80.00

\*Trolleys can be furnished to run on larger size Steelbeams or Bethlehem I-Beams at a list price of \$3.00 extra.

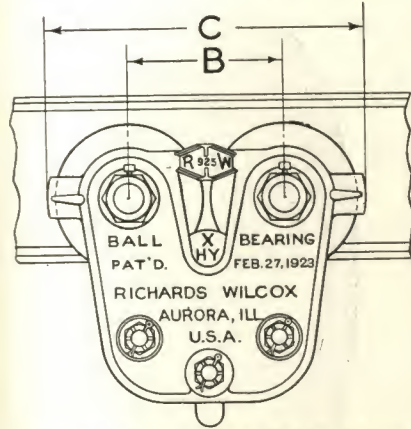
†This dimension applies to trolleys running on smallest of the three Steelbeams of each capacity listed on column two. Add 1/4 inch for each larger size Steelbeam.

Discount.....

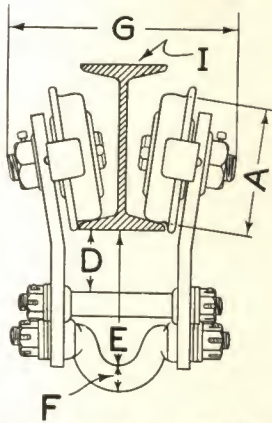


## R-W No. 925XHY Steelbeam Ball-Bearing Trolleys

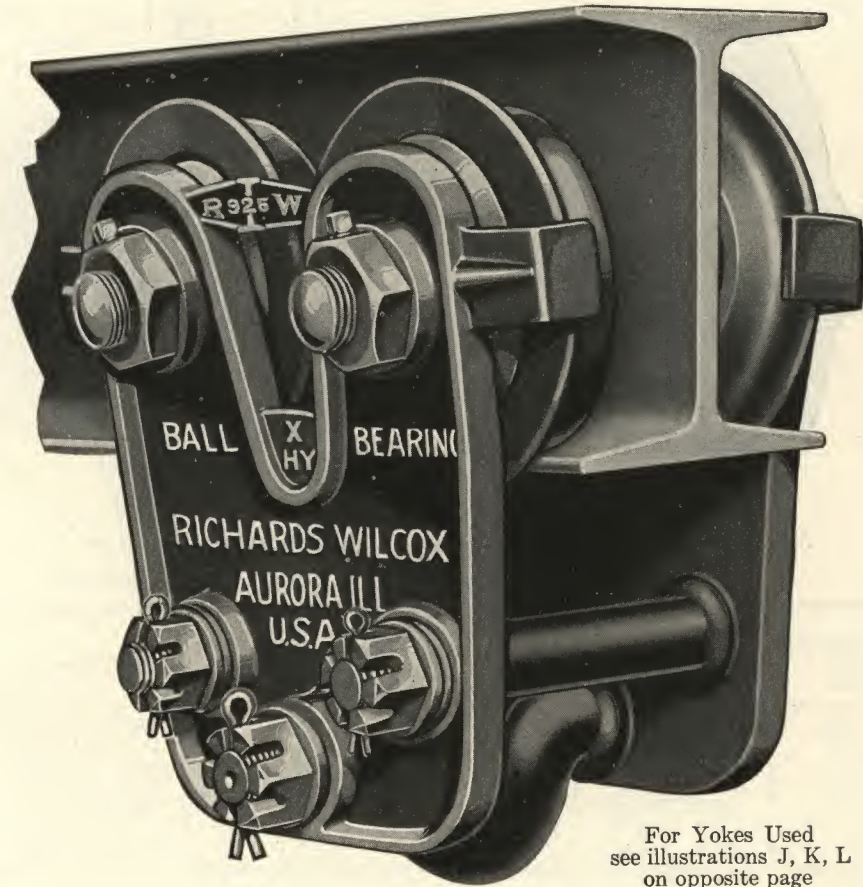
Will Operate upon Standard I-Beam or Bethlehem I-Beam Track as well as upon R-W Steelbeam



For Dimensions see Table Below



For Dimensions See Table below



For Yokes Used  
see illustrations J, K, L  
on opposite page

The above trolley is the same as the No. 925, described on the opposite page, with the exception that the side plates of this trolley, No. 925XHY, are of greater height. This extra height gives more clearance space below the bottom of the Steelbeam or I-Beam Track. It is often necessary to have a trolley with this extra high clearance space, due to the fact that improperly erected I-Beam track often has its lengths joined together with heavier joint plates on the bottom flange than are standard. Often these joint plates are so thick that when it is attempted to operate a standard trolley over the system that the lower portion of the joint plates strike one of the spreader rods of the

trolley, thus stopping the advance of the trolley and preventing its being operated past the joint plates. To rip all these thick joint plates off an entire system of track and replace with standard sized joint plates would be, in most instances, impractical and expensive. The No. 925XHY Trolley leaves plenty of clearance space between the bottom of the track joint plates and the top of the trolley spreader rods. Its side plates were designed especially to meet the above condition otherwise it is identical with the No. 925 Trolley, described on the opposite page.

### Dimensions and List Prices

No. and Capacity of Trolley, Tons	*Standard Size of Steelbeam, Inches	Width of Wheel-Tread, Inches	Diam. of Wheels on Tread, Inches A	Wheel Centers Inches, B	Length Over All Inches, C	Clearance Below Steelbeam, Inches, D	Dist. from Bottom of Steelbeam to Yoke Inches, E	Diameter of Yoke, Inches, F	Width Over All, Inches, †G	Pull Required to Start Full Load, Lbs.	Weight, Lbs.	List Price, Each
925XHY— $\frac{1}{4}$	4, 5, 6	$\frac{5}{8}$	$2\frac{5}{8}$	$3\frac{3}{8}$	$8\frac{1}{4}$	$1\frac{3}{4}$	3	$\frac{5}{8}$	$6\frac{1}{4}$	10	24	\$22.00
925XHY— $\frac{1}{2}$	5, 6, 7	$\frac{3}{4}$	$3\frac{3}{4}$	$4\frac{5}{8}$	$10\frac{1}{4}$	$1\frac{3}{4}$	$3\frac{1}{2}$	$\frac{5}{8}$	$7\frac{1}{2}$	17	42	25.00
925XHY—1	6, 7, 8	$\frac{5}{8}$	$4\frac{5}{8}$	$5\frac{3}{8}$	$12\frac{1}{4}$	2	4	$\frac{5}{8}$	8	37	66	32.00
925XHY— $1\frac{1}{2}$	7, 8, 9	$1\frac{1}{8}$	$5\frac{1}{2}$	$6\frac{7}{8}$	$14\frac{1}{2}$	2	$4\frac{1}{2}$	$1\frac{1}{4}$	$9\frac{1}{2}$	45	90	40.00
925XHY—2	8, 9, 10	$1\frac{3}{8}$	$6\frac{3}{8}$	$7\frac{5}{8}$	$16\frac{3}{4}$	2	5	$1\frac{1}{4}$	$10\frac{1}{4}$	50	122	48.00
925XHY—3	9, 10, 12	$1\frac{5}{8}$	$7\frac{1}{8}$	$9\frac{1}{8}$	19	2	$5\frac{1}{2}$	$1\frac{1}{2}$	$11\frac{1}{4}$	75	178	64.00
925XHY—4	10, 12, 15	$1\frac{7}{8}$	$7\frac{7}{8}$	10	21	2	6	$1\frac{1}{2}$	$12\frac{1}{4}$	95	218	80.00

\*Trolleys can be furnished to run on larger size Steelbeams or Bethlehem I-Beams at a list price of \$3.00 extra.

†This dimension applies to trolleys running on smallest of the three Steelbeams of each capacity listed on column two. Add  $\frac{1}{8}$  inch for each larger size Steelbeam.

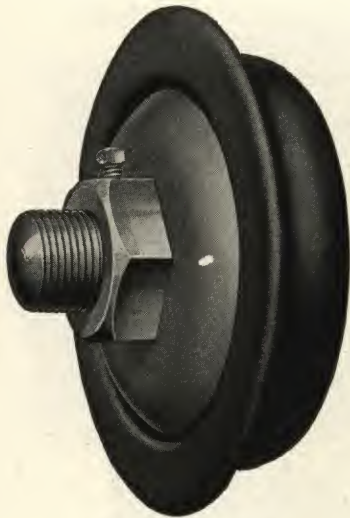
Discount.....

No. 925XHY will operate where standard sized trolleys will not

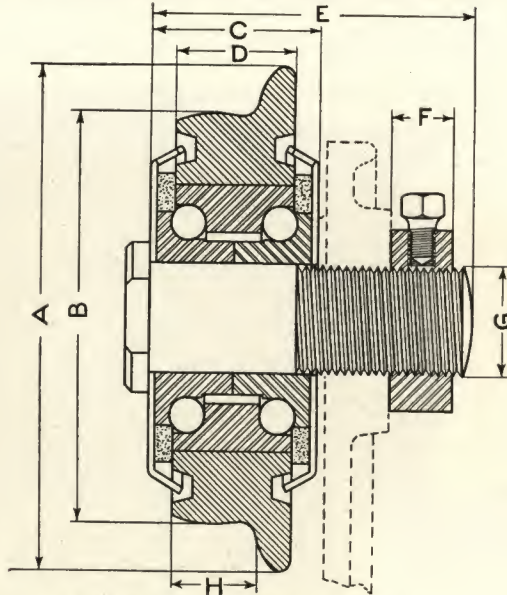


## R-W No. 925 Trolley Wheels

Assembled and Unassembled



Assembled Wheel



See table below for dimensions



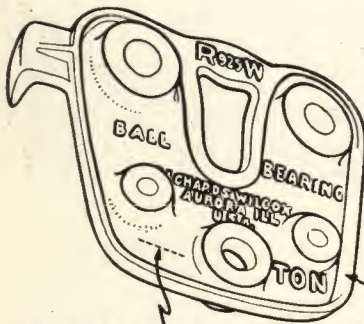
Unassembled Wheel

### Dimensions and List Price

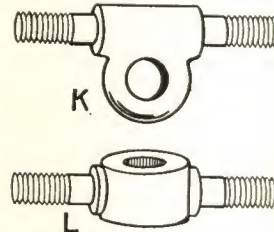
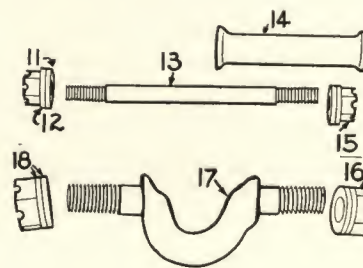
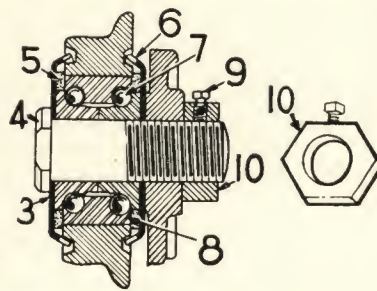
No. and Capacity of Trolley in Tons	A	B	C	D	E	F	G Threads	H	Ball Bearing Diameters	Assembled Wheels, Each	Unassembled Wheels, Each
925- 1/4	3 1/2"	27 8/8"	1.20 "	2 3/8"	2 1/4"	7 1/8"	1 1/8"-16 U.S.F.	5 3/8"	1 1/4"	\$ 7.00	\$2.50
925- 1/2	4 9/16"	3 3/4"	1.499"	1 1/16"	2 7/8"	9 1/8"	1 1/8"-14 U.S.F.	5 1/4"	5/8"	8.00	2.90
925-1	5 1/2"	4 5/8"	1.811"	1 1/4"	3 5/8"	5 5/8"	1 1/8"-12 U.S.F.	5 1/8"	5/8"	10.00	3.65
925-1 1/2	6 1/2"	5 1/2"	2.00 "	1 1/8"	3 3/4"	3 3/4"	1 1/4"-12 U.S.F.	1 1/2"	7/8"	12.50	4.50
925-2	7 9/16"	6 5/8"	2.25 "	1 5/8"	4 1/4"	4 1/8"	1 3/8"-12 U.S.F.	1 3/8"	7/8"	15.00	5.40
925-3	8 5/8"	7 1/8"	2.521"	1 3/8"	4 5/8"	4 7/8"	1 1/2"-12 U.S.F.	1 1/2"	1 1/2"	20.00	7.00
925-4	9 1/2"	7 15/16"	2.573"	2 "	4 15/16"	5 1/8"	1 5/8"-12 U.S.F.	1 1/2"	1 1/2"	25.00	8.75

## R-W No. 925 Trolley Parts

Discount.....



SIZE OF TROLLEY GIVEN HERE



### List Price

No. and Capacity of Trolley in Tons	2 Side Plate, Each	3 Bearing Cone, Each	4 Axle, Each	5-6 Dust cap with Felt Washer	7 Ball-Bearings Each	8 Ball Race, Each	9, 10 Axle Nut with Screw	11 Thin Washer for Separator Stud, Each	12 Thick Washer for Separator Stud, Each	13 Separator Stud, Each	14 Separator, Each	15 Nut for Separator Stud, Each	16 Nut for Yoke Each	18 Washer for Yoke, Each	17 Stand-ard Yoke Each	K Eye Yoke, Each	L Swivel Yoke, Each
925- 1/4	\$ 4.50	\$ .80	\$2.00	\$ .30	\$ .02	\$3.50	\$ .40	\$ .10	\$ .10	\$ .40	\$ .80	\$ .20	\$ .50	\$ .10	\$2.00	\$2.50	\$2.50
925- 1/2	5.25	1.00	2.30	.35	.02	4.00	.45	.12	.12	.45	1.00	.23	.60	.12	2.30	2.80	2.80
925-1	6.50	1.25	2.90	.45	.02	5.00	.55	.15	.15	.55	1.25	.30	.75	.15	2.90	3.50	3.50
925-1 1/2	8.00	1.60	3.60	.55	.02	6.25	.65	.20	.20	.65	1.60	.40	.90	.20	3.60	4.20	4.20
925-2	9.60	1.95	4.35	.65	.04	7.50	.75	.25	.25	.75	1.95	.50	1.10	.25	4.35	5.00	5.00
925-3	12.50	2.55	5.65	.85	.04	9.75	.85	.30	.30	.85	2.55	.65	1.45	.30	5.65	5.25	5.25
925-4	15.75	3.20	7.00	1.05	.05	12.20	1.05	.40	.40	1.05	3.20	.85	1.80	.40	7.00	8.00	8.00

Discount.....

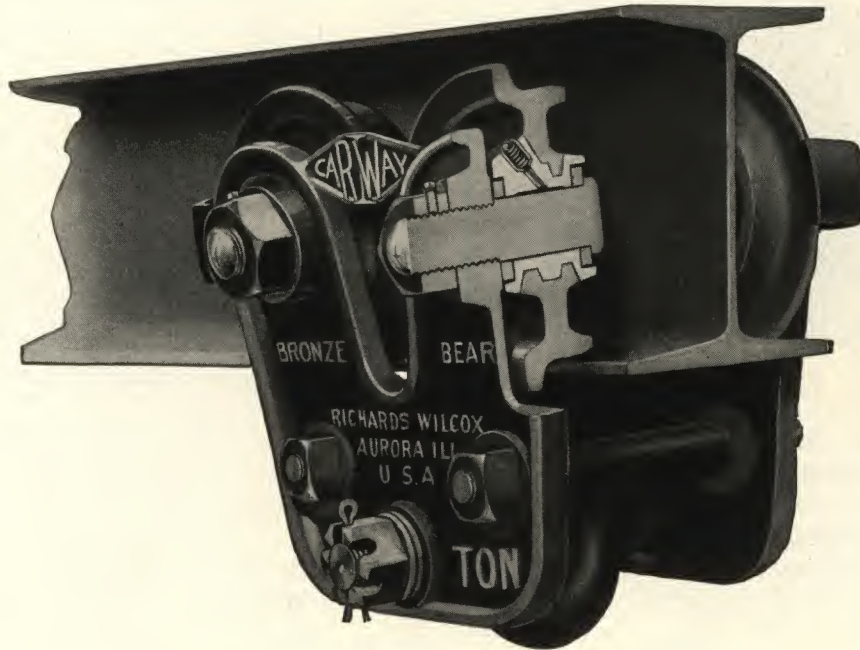


R-W No. 926

## Plain Bearing Steelbeam Trolleys

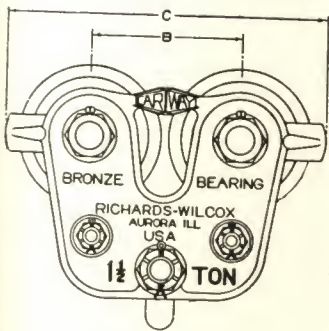
Patented

Will Operate upon Standard I-Beam Track or Bethlehem I-Beam as well as upon R-W Steelbeam



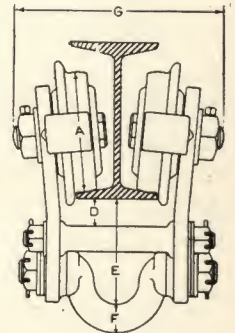
See Pages  
352 and 353  
for  
Ball-Bearing  
Trolleys

Made in Five Sizes  
Each Trolley Adjustable to Three Sizes of Steelbeam or I-Beams



For Dimensions  
See Table below

High test malleable iron side plates and yoke. Wheels of hard grey iron with treads crowned to give minimum friction and chilled to give maximum hardness and minimum wear. Short wheel base operates easily on curves. Wheels have bronze bushed bearings operating on hardened steel pins. Spreader rods set loose in oversized holes so that trolley sides can pivot about the load pin, insuring even distribution of load on all four wheels under all conditions. Bumpers on end of frame sides prevent trolleys from damaging wheel flanges when running together. For yokes see opposite page.



For Dimensions  
See Table below

List Price and Dimension Table

No. and Capacity of Trolley, Tons	*Standard Size of Steelbeams, Inches	Width of Wheel-Tread, Inches	Diam. of Wheels on Tread, Inches, A	Wheel Centers, Inches, B	Length Over All, Inches, C	Clearance Below Steelbeam, Inches, D	Dist. from Bottom of Steelbeam to Yoke, Inches, E	Diameter of Yoke, Inches, F	Width Over All, Inches, †G	Weight, Pounds	List Price, Each
926—1/4	4, 5, 6	5/8	2 1/8	3 3/8	8 1/4	3/4	3	5/8	6 1/4	22	\$15.00
926—1/2	5, 6, 7	3/4	3 3/4	4 3/8	10 1/4	1	3 1/2	7/8	7 1/2	38	18.00
926—1	6, 7, 8	7/8	4 1/2	5 3/4	12 1/4	1 1/4	4	1	8	62	24.00
926—1 1/2	7, 8, 9	1 1/8	5 1/2	6 1/2	14 1/2	1 3/4	4 1/2	1 1/4	9 1/2	84	30.00
926—2	8, 9, 10	1 3/8	6 3/8	7 1/2	16 1/2	1 3/4	5	1 1/2	10 1/4	116	36.00

\*Trolleys can be furnished to run on larger size Steelbeams or Bethlehem I-Beams at a list price of \$3.00 extra.

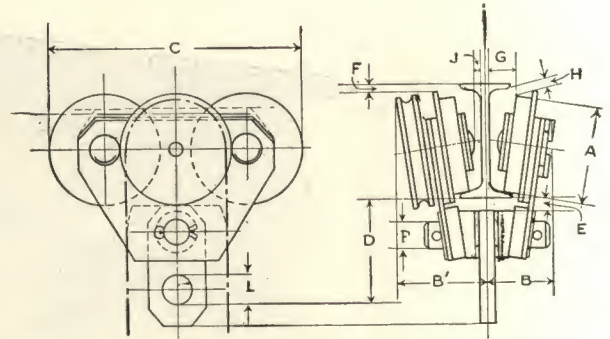
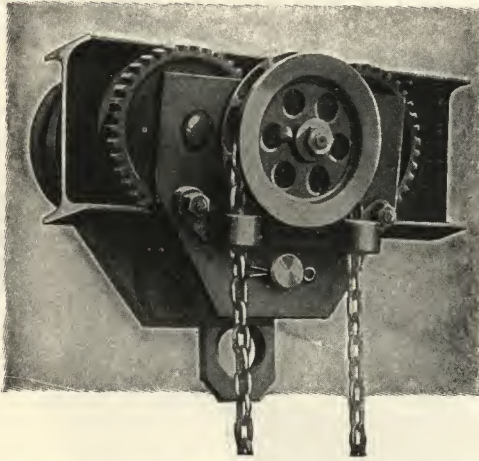
†This dimension applies to trolleys running on smallest of the three Steelbeams of each capacity listed in column two. Add 1/2 inch for each larger size Steelbeam. See Dimension Diagram above.

Discount.....



## R-W No. 927 Geared Trolleys

For Steelbeam and I-Beam Track



For dimensions see Table below

Geared trolleys are preferable where it is necessary to stop the loads in exact locations or where the track is at a considerable distance above the floor. The gear drive permits the starting and traveling of heavy loads with great ease. A small boy can move the largest sizes trolley with maximum load.

On account of the extra width of geared trolleys, it is necessary to use special switches with longer tongues and greater throw.

Trolleys are all adjustable for the next two larger sizes of Steelbeams.

### List Price

No. of Trolley and Size of Steelbeam	Rated Capacity in Tons	Standard Reach of Hand Chain from Under Side of Steelbeam	Smallest Radius for Curve	Pull on Hand Chain to move Full Load	Weight in Lbs.	Diameter of Tread of Wheels	List Price
927— 6"	1	8'8"	21"	15 lbs.	90	4 3/4"	\$ 80.00
927— 7"	1 1/2	9'0"	30"	24 lbs.	140	5 1/2"	100.00
927— 8"	2	10'5"	36"	23 lbs.	170	6 1/2"	120.00
927— 9"	3	12'3"	42"	16 lbs.	180	7 1/4"	140.00
927—10"	4	12'6"	48"	18 lbs.	350	8 1/4"	170.00

### Discount

### Limits of Widening on R-W No. 927 Geared Trolleys

**Note**—Geared trolleys are furnished in two ways—Standard with two size Steelbeam adjusting washers as given in fourth column. Size for larger Steelbeams, up to maximum of beam given in fifth column must be specified on order. Furnished without extra charge. Special price on Trolleys for Bethlehem Beams.

Rated Capacity in Tons	Standard Size of Steelbeam	Width of Steelbeam Flange	With Adjusting Washers on Pin	Max. Size of Steelbeam
1	6" 12.5 lbs.	3.33"	6, 7, 8"	24"
1 1/2	7" 15.3 lbs.	3.66"	7, 8, 9"	24"
2	8" 18.4 lbs.	4.00"	8, 9, 10"	24"
3	9" 21.8 lbs.	4.33"	9, 10, 12"	24"
4	10" 25.4 lbs.	4.66"	10, 12, 15"	24"

### Clearance Required for R-W 927 Geared Trolleys

Rated Capacity in Tons	B	B'	C	D	E
1	3 3/4"	5 3/4"	1'- 1"	6 15/16"	1 1/2"
1 1/2	4 1/4"	6 3/4"	1'- 3 5/16"	7 3/4"	1 1/2"
2	4 5/8"	7 3/16"	1'- 5 5/16"	8 1/8"	1 1/2"
3	5"	8"	1'- 8 1/8"	8 7/8"	1 1/2"
4	5 5/16"	8 7/16"	1'-10 1/8"	8 3/4"	1 1/2"

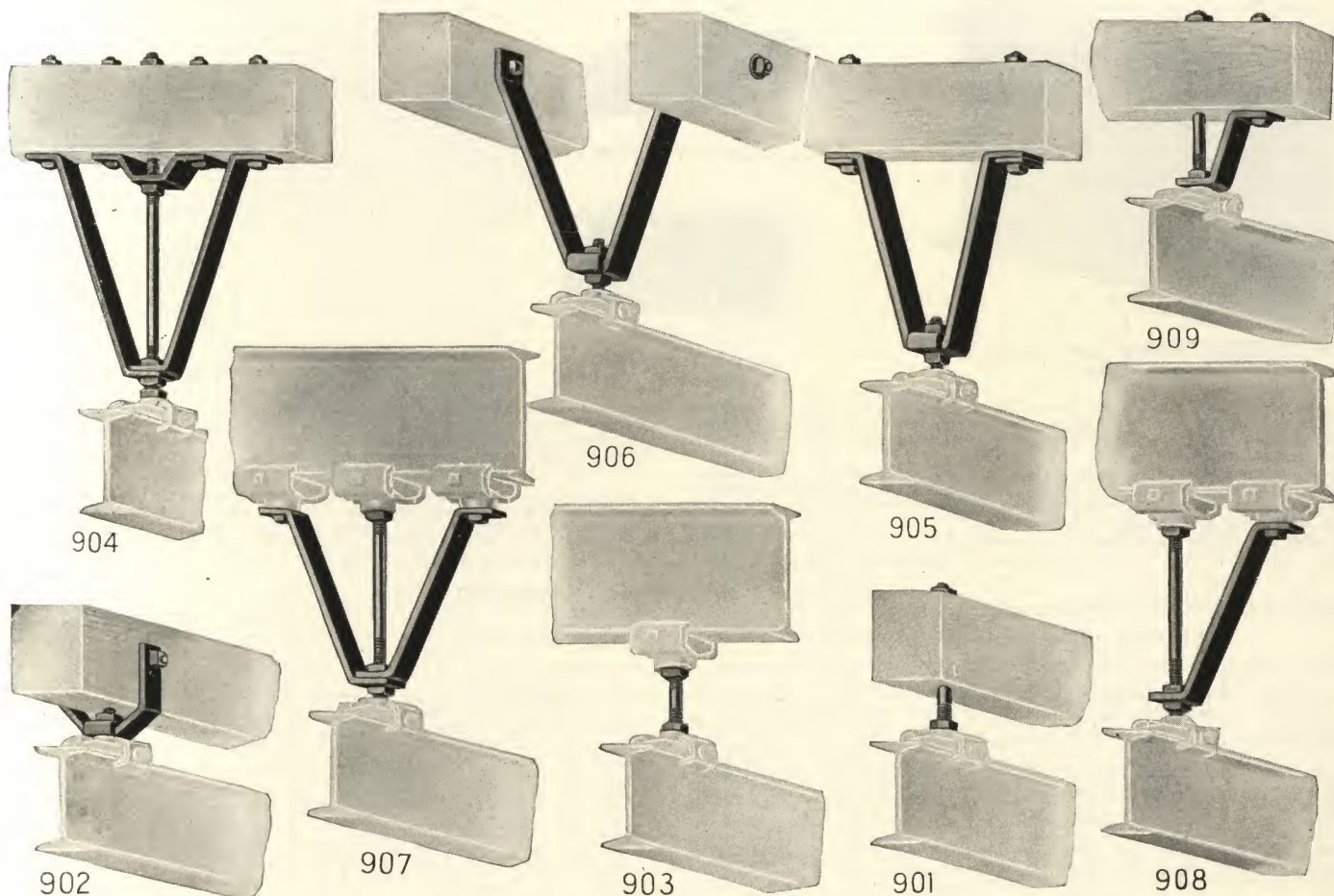
  

Rated Capacity in Tons	F	G	J	L	P
1	11/16"	1 7/16"	1/4"	2"	1 3/8"
1 1/2	1 1/16"	1 3/4"	3/8"	2"	1 1/2"
2	1 1/16"	1 7/8"	5/16"	2 1/4"	1 3/4"
3	3/4"	2 1/16"	3/8"	2 1/4"	2"
4	3/4"	2 1/4"	5/16"	2 1/4"	2 1/4"

For hand chain on geared trolleys longer than standard, an extra price of one dollar list, per foot of "reach" will be charged.



## R-W Nos. 901 to 909 Standard Drop Brackets for Steelbeam



The Steelbeam supporting brackets listed on this page will meet most conditions and are typical of general practice. Nos. 901, 902 and 903 types should generally be used for very short drops only, but the No. 901 and the No. 903 type may be used for long drops if alternated, with supports of the braced type such as Nos. 904, 905, 906, 907, 908 or 909. On long drops supporting curves, brackets of the braced type are usually required. Each curve of 90 degrees or thereabouts requires three supports one at the center and one near the end. The drop is the distance between the top of the Steelbeam and the bottom of the supporting member. When ordering brackets of the Nos. 901, 902, 904, 905 and 909 types, always state size of the wood beam to which the support is attached. In ordering brackets of the 906 type, state the distance between the wood beams and the size of the

beams. In ordering brackets of the Nos. 903, 907 or 908 type, always give the size of the upper I-Beam or other structural member to which the support is attached. If the support is attached to the bottom chord of a truss, always send a sketch giving exact dimensions of the truss member.

**Note**—Universal clamps shown in above illustration are not included in price of brackets. If Universal Clamps are to be furnished state size and weight of Steelbeam, also size and weight of I-Beam to which supports are attached.

Diameter of round supporting rods is  $\frac{5}{8}$ " for 500 lbs. cap.;  $\frac{3}{4}$ " for 1000 lbs.;  $\frac{7}{8}$ " for 2000 lbs.;  $1\frac{1}{8}$ " for 3000 lbs.;  $1\frac{1}{4}$ " for 4000 lbs.;  $1\frac{3}{8}$ " for 6000 lbs.;  $1\frac{1}{2}$ " for 8000 lbs.

Bracket  No.	Diameter of Attachment Bolts							Up to 12" long—List Price (clamps not included)													
	For loads up to — lbs.							For loads up to — lbs.							For each additional 12" add to list For loads up to — lbs.						
	500	1000	2000	3000	4000	6000	8000	500	1000	2000	3000	4000	6000	8000	500	1000	2000	3000	4000	6000	8000
901	1/2"	3/4"	7/8"	*7/8"	*1"	*1 1/4"	*1 3/8"	\$0.54	\$0.60	\$0.72	\$1.14	\$1.45	\$2.00	\$2.40	\$0.12	\$0.12	\$0.18	\$0.30	\$0.42	\$0.48	\$0.60
902	1/2"	3/4"	7/8"	7/8"	1"	1 1/4"	1 3/8"	1.80	3.42	4.20	5.40	5.75	7.30	8.15	.12	.60	.85	1.25	1.32	1.62	2.00
903	1/2"	3/4"	7/8"	7/8"	1"	1 1/4"	1 3/8"	.54	.60	.72	1.14	1.45	2.00	2.40	.12	.12	.18	.30	.42	.48	.60
904	1/2"	1 1/2"	5/8"	3/4"	1"	1 1/2"	1 3/4"	2.10	2.90	3.40	4.50	5.15	6.70	7.70	.36	.48	.72	1.14	1.25	1.55	1.90
#904 Clip	1/2"	3/4"	3/4"	3/4"	1"	1 1/2"	1 3/4"	2.10	2.90	3.40	4.50	5.15	6.70	7.70	.36	.48	.72	1.14	1.25	1.55	1.90
905	1/2"	5/8"	3/4"	7/8"	7/8"	1 1/8"	1 1/4"	1.80	3.42	4.20	5.40	5.75	7.30	8.15	.48	.60	.85	1.25	1.32	1.62	2.00
906	1/2"	3/4"	7/8"	7/8"	1"	1 1/4"	1 3/8"	1.80	3.42	4.20	5.40	5.75	7.30	8.15	.48	.60	.85	1.25	1.32	1.62	2.00
907	1/2"	3/4"	7/8"	7/8"	1"	1 1/4"	1 3/8"	2.10	2.90	3.40	4.50	5.15	6.70	7.70	.35	.48	.72	1.14	1.25	1.55	1.90
908	1/2"	1 1/2"	5/8"	3/4"	1"	1 1/2"	1 3/4"	1.55	1.75	2.00	2.90	3.30	4.40	5.00	.24	.30	.48	.72	.85	1.00	1.25
909	1/2"	1 1/2"	5/8"	3/4"	1"	1 1/2"	1 3/4"	1.55	1.75	2.00	2.90	3.30	4.40	5.00	.24	.30	.48	.72	.85	1.00	1.25

\*Brackets are made for two bolts.

†Brace only.

‡Brackets are made for two bolts on each side.

#Clip only.

Discount.....

### Directions for Ordering

Always specify by number, stating load. Send sketch showing dimensions of overhead structure and distance of drop required. Bolts or lag screws for attaching brackets are only furnished when specified. A moderate charge for same will be made.

*When conditions warrant Special Drop Brackets can be designed*



## R-W No. 900 Steelbeam Track and Joint Plates

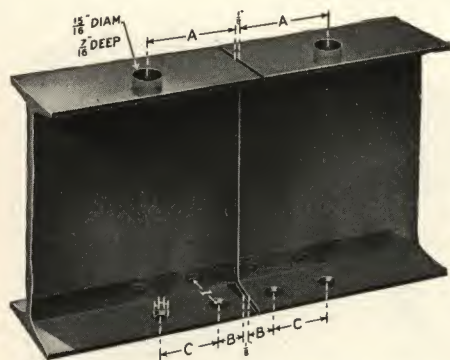


Fig. A-1933—Drilling dimensions given in table below



Fig. A-1934—Top Joint Plate

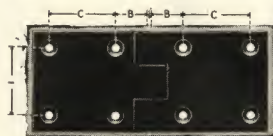


Fig. A-1935  
Bottom Joint Plates

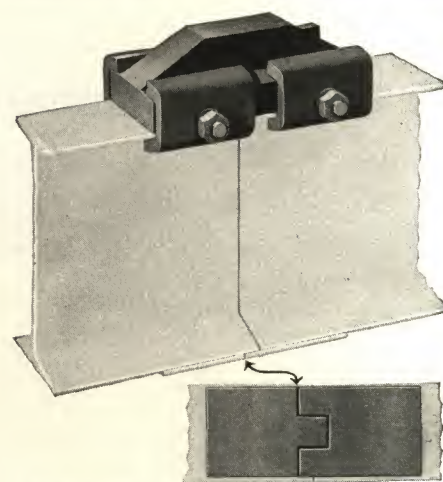


Fig. A-1936—Joint Plates as applied to Steelbeam Track

Standard, light section Steelbeam, 4 to 12 inches high, is furnished in any length in one piece up to 22 feet long. Each beam is carefully straightened, trued up and flanges ground, insuring a smooth surface for the trolleys to operate on. Beams are fitted for switches and painted.

Our Joint Plates require no riveting in the field. Male and female Bottom Plates are furnished; one plate being riveted or welded to each end of the track beam in the shop. When erecting, the beams with the bottom joint plates attached, are slipped together. The Bottom Plates hold the beams in line laterally.

The Top Joint Plates are designed to carry the load of the beams but the joint plate

**Note**—All Fittings for Steelbeam fit Standard light section I-Beam track of same size.

must be located as close as possible to a track support. The main member is a heavy casting which is connected to each beam by steel clamps which are drawn tightly into contact with the upper flange of the beam and the cast block by means of bolts. A lug on the bottom of the casting projects into a hole in the top of the beam which is drilled in the shop. This lug assures correct location of the joint plate on the beam.

Joint plates are often sold separately from the track so, for the convenience of our customers, we are pricing them separately. In these cases the bottom plates have rivet holes punched in them but when shipped with the track, the bottom plates are welded to the track. The prices of the Steelbeam Track include the joint plates.

### List Price and Drilling Dimensions

List Price: Of Straight and Curved Steelbeam Track; Of Top and Bottom Joint Plates						*Drilling Dimensions in Steelbeam and Top and Bottom Joint Plates, inches				
No. and Size of Steelbeam	Weight of Steelbeam per foot Lbs.	Maximum Capacity Lbs.	Price per foot including Joints	Extra for Bending Curves of 10 ft. or less of Track	Add per foot for curves over 10 feet long	No. 900 Bottom Joint Plates, per pair	Weight per pair Lbs.	No. 900 Top Joint Plates, each	Weight Each Lbs.	
900—4"	7.7	500	\$ .80	\$5.00	\$ .36	\$ .40	1	\$1.40	7	A
900—5"	10.	1000	1.00	6.25	.50	.40	1½	1.60	8	B
900—6"	15.5	2000	1.20	7.50	.68	.40	1½	1.90	11	C
900—7"	15.3	3000	1.50	8.75	.80	.50	2	2.20	15½	H
900—8"	18.4	4000	1.80	10.00	.96	.50	2	2.80	20	I
900—9"	21.8	6000	2.20	11.25	1.07	.65	2¾	3.75	30½	
900—10"	25.4	8000	2.60	12.50	1.21	.65	2¾	5.00	44	
900—12"	31.8	8000	3.20	15.00	1.53	1.00	3½	6.00	45	

\*See Figs. A-1934; A-1935.

### Table of Maximum Spans for Steelbeam Track

Size of Steelbeam	CAPACITIES										
	500 Lbs.	1000 Lbs.	1500 Lbs.	2000 Lbs.	2500 Lbs.	3000 Lbs.	4000 Lbs.	5000 Lbs.	6000 Lbs.	7000 Lbs.	8000 Lbs.
4"	15' 6"	14' 0"	12' 9"	11' 3"	10' 0"	9' 0"	8' 0"	7' 0"	6' 0"	5' 0"	4' 0"
5"	17' 6"	16' 0"	14' 3"	12' 9"	11' 3"	10' 0"	9' 0"	8' 0"	7' 0"	6' 0"	5' 0"
6"	19' 3"	18' 3"	16' 3"	14' 3"	12' 9"	11' 3"	10' 0"	9' 0"	8' 0"	7' 0"	6' 0"
7"	21' 3"	21' 3"	18' 3"	16' 3"	14' 3"	12' 9"	11' 3"	10' 0"	9' 0"	8' 0"	7' 0"
8"	23' 3"	23' 3"	22' 3"	19' 9"	17' 6"	16' 3"	13' 6"	12' 0"	11' 0"	10' 0"	9' 0"
9"	25' 3"	25' 3"	25' 3"	23' 6"	21' 3"	19' 6"	16' 9"	14' 6"	13' 0"	12' 0"	11' 0"
10"	27' 3"	27' 3"	27' 3"	27' 0"	22' 9"	23' 0"	19' 9"	17' 6"	15' 6"	14' 0"	13' 0"
12"	29' 3"	29' 3"	29' 3"	29' 3"	29' 3"	27' 9"	24' 6"	22' 6"	20' 6"	18' 6"	17' 3"

**Directions for Ordering**—Always send sketch giving correct dimensions and proposed layout of track. State weight and size of maximum load, whether for constant or occasional use and whether track will be used for storage purposes. Send detail of overhead construction, so proper brackets will be furnished.

### List Price of Standard 90° Curves with 1 ft. of Straight Track On Each End. Mortise Plates Attached to Both Ends

Radius in Feet	Length in Feet		Size of Steelbeam Track							
			4"	5"	6"	7"	8"	9"	10"	12"
2½	5.92	Price	\$ 9.75	\$12.96	\$15.55	\$18.82	.....	.....	.....	.....
3	6.71	Price	10.37	13.74	16.48	19.98	.....	.....	.....	.....
3½	7.49	Price	11.00	14.53	17.40	21.17	24.90	29.46	38.10	46.52
4	8.28	Price	11.63	15.10	18.32	22.52	27.73	32.92	42.51	51.49
5	9.85	Price	12.88	16.10	19.32	23.52	29.73	35.88	45.51	54.00
6	11.42	Price	14.14	17.67	21.20	25.88	31.52	37.34	47.61	56.87
7	13.	Price	15.08	19.50	24.44	29.90	35.88	42.51	52.75	61.46
8	14.56	Price	.....	21.84	27.37	33.48	40.19	47.61	55.47	63.87
9	16.13	Price	.....	.....	30.32	37.10	44.52	52.75	61.46	70.29
10	17.7	Price	.....	.....	.....	40.71	48.85	57.77	67.44	76.29

Discount.....



## R-W No. 910 Universal Clamps



Fig. A-1939—Universal Clamp as applied to Steelbeam

Fig. A-1937—See Dimension Table Below

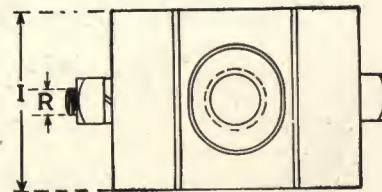
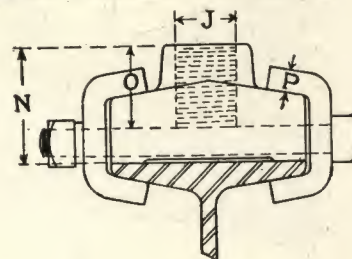


Fig. A-1938—See Dimension Table Below



The Universal Clamp is a device for attaching supporting brackets to Steelbeams or standard I-Beams. If Clamps are to fit Bethlehem I-Beams, they are made special. Be sure to specify Bethlehem beams when ordering, otherwise standard clamps will be sent. With this clamp it is not necessary to drill holes in Steelbeams or standard I-Beams. Can be attached to any point.

Clamp block is a heavy casting which is clamped to the top flange of the Steelbeam or Standard I-Beam track by steel clamp sides.

Special clamps to fit Bethlehem beams, special sections of beams, and bottom chords of trusses, can be furnished when required. Always send dimensioned sketch of truss chord or special beam.

Always specify by number and state size and weight of Steelbeams. Unless otherwise specified, clamps for standard light sections will be sent.

### Dimensions of Clamps

Size of Clamp	I	*J	N	O	P	R
No. 910—4"	3"	5/8"—11	1 1/16"	1 1/16"	1 1/4"	1 1/2"
No. 910—5"	3"	3/4"—10	1 3/4"	1 1/8"	5/8"	1 1/2"
No. 910—6"	3"	7/8"—9	1 3/4"	1 1/8"	3/8"	1 1/2"
No. 910—7"	3 1/2"	1 1/8"—7	1 3/4"	1 3/8"	3/8"	5/8"
No. 910—8"	3 1/2"	1 1/4"—7	2 1/16"	1 3/8"	1/2"	5/8"
No. 910—9"	4"	1 3/8"—6	2 5/8"	1 3/4"	1 1/2"	3/4"
No. 910—10"	4 1/2"	1 1/2"—6	2 7/8"	2"	5/8"	3/4"
No. 910—12"	4 1/2"	1 1/2"—6	3"	2 1/16"	5/8"	3/4"

\*Standard size tapped hole as used for maximum loads given in capacity table. Smaller size tapped holes furnished on order. Second figure indicates number of threads per inch.

No. of Clamp and Size of Steelbeam	For Steelbeam No.	Maximum Capacity Lbs.	Weight Each, Lbs.	List Price Each
910—4"	900—4"	500	3	\$1.30
910—5"	900—5"	1000	3 1/2	1.45
910—6"	900—6"	2000	4	1.45
910—7"	900—7"	3000	6	1.80
910—8"	900—8"	4000	8	2.15
910—9"	900—9"	6000	12	2.64
910—10"	900—10"	8000	17 3/4	3.00
910—12"	900—12"	8000	25	3.50
†910—Special	.....	2000	.....	4.50
†910—Special	.....	8000	.....	5.50

†This item applies to universal clamps made to fit Bethlehem I-Beams, or truss chords. Unless otherwise specified, clamps will be furnished with holes tapped to size given in column "J".

Discount.....

*An R-W Engineer will be pleased to confer with you at any time*



## R-W Nos. 911 and 914 Steelbeam Tongue Switches

(Also used in connection with standard I-Beam Track)

The No. 911 Switches are for Plain Hand Operated Trolleys

The No. 914 Switches are for Geared Trolleys

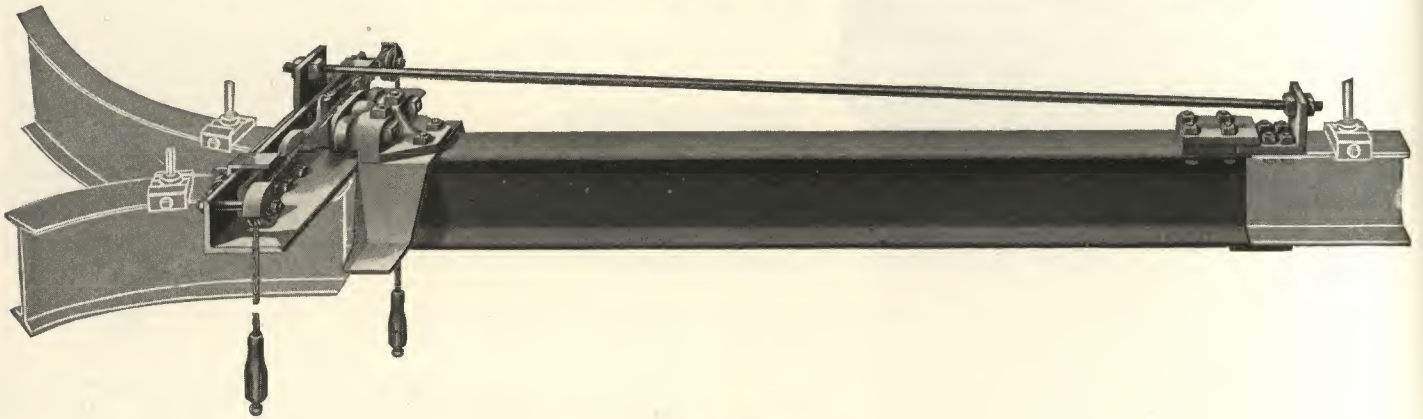


Fig. A-1940  
Two-Way Switch, Neutral

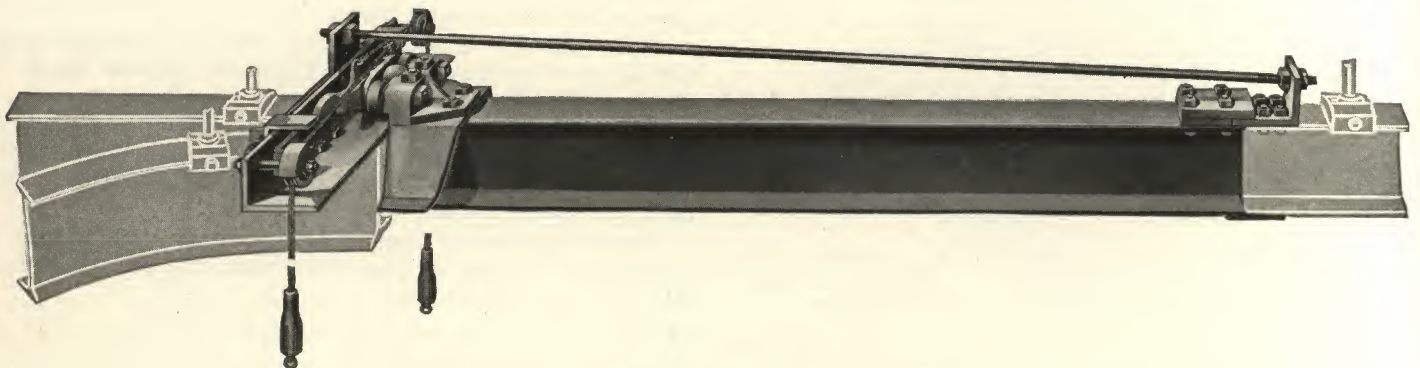


Fig. A-1941  
Two-Way Switch—Right or Left-Hand (cut shows Left-Hand)

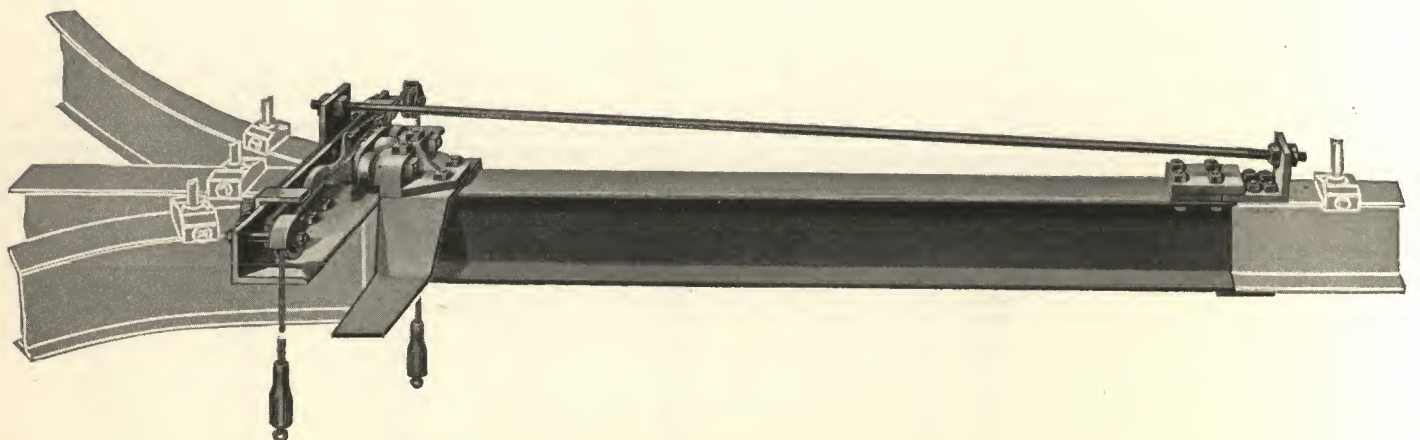


Fig. A-1942  
Three-Way Switch

**Note**—No. 911 Tongue Switches are illustrated above. They are made for plain hand-operated trolleys. No. 914 Tongue Switches are the same except are made with longer tongues and with a wider opening or throat for use with geared trolleys.



## R-W Nos. 911 and 914 Steelbeam Tongue Switches (Continued)

No. 911 Switches carried in stock are designed for plain hand operated trolleys. The opening between the ends of the track will not permit the use of geared trolleys or electric trolleys.

If geared or electric trolleys are required special switches can be built to order. Prices of switches for geared trolleys are listed below as No. 914, and switches for electric trolleys on page 362. The pivot end of the switch is fitted with steel plates and pivot pins top and bottom. The movable end of the switch is supported by two wheels which roll on a heavy angle iron head. The switch is positively locked in any final position. Pulling on the hand chain on the side toward which the switch is to be moved first releases the lock and then moves the switch to the position desired, where it is automatically locked in place. Switches for

4-inch, 5-inch, 6-inch and 7-inch I-Beams have one connecting rod to prevent separation between the ends of the stationary tracks and to maintain the correct distance for operating the switch. Two connecting rods are furnished with 8-inch, 9-inch, 10-inch and 12-inch I-Beam switches. The two-way switches are made right-hand, left-hand and neutral. The right-hand and left-hand switches connect with one straight track and one curved track, while the neutral switch connects with two curved tracks. Switches are equipped with positive safety stops to prevent trolleys from running off open end of I-Beam track.

Curved and straight sections of track shown at either end of switches in illustrations are not included in price of switches. Finish, black japan.

### R-W No. 911

#### List Price of Steelbeam Tongue Switches for Plain Hand Operated Trolleys

Number of Switch and size of Steelbeam	Length Over All, Feet	Minimum Head-room Above Top of Steelbeam	Throw of Switch	WEIGHT		LIST PRICE	
				Two-Way, Lbs.	Three-Way, Lbs.	Two-Way, Each	Three-Way, Each
911— 4"	6	7"	5 "	120	130	\$ 40.00	\$ 50.00
911— 5"	6	7"	5 "	140	150	50.00	65.00
911— 6"	6	7"	5 5/8"	160	170	55.00	75.00
911— 7"	6	7"	5 5/8"	180	190	60.00	85.00
911— 8"	6	7"	7 3/4"	220	230	75.00	105.00
911— 9"	6	7"	7 3/4"	245	255	100.00	135.00
911—10"	6	7"	7 3/4"	280	290	130.00	170.00
911—12"	6	7"	7 3/4"	320	330	140.00	180.00

**Note**—Always specify by number, stating size and weight of Steelbeam or I-Beam. Unless otherwise specified, switches for standard light sections will be sent. State whether two or three-way switch is desired. On two-way switches state whether right-hand, left-hand or neutral switch is required.

Discount.....

### R-W No. 914

#### List Price of Steelbeam Tongue Switches for Geared Trolleys (Throw of switch as required)

No. of Switch and Size of Steelbeam	Length Over All, Feet	Minimum Head-room above Top of Steelbeam	WEIGHT		LIST PRICE	
			Two-Way, Lbs.	Three-Way, Lbs.	Two-Way, Each	Three-Way, Each
914— 6"	8	7"	200	225	\$112.00	\$127.00
914— 7"	8	7"	230	250	120.00	139.00
914— 8"	8	7"	275	295	128.00	163.00
914— 9"	8	7"	310	325	160.00	200.00
914—10"	8	7"	350	370	193.00	240.00
914—12"	8	7"	385	395	207.00	253.00

**Note**—Always specify by number, stating size and weight of Steelbeam or I-Beam. Unless otherwise specified, switches for standard light sections will be sent. State whether two or three-way switch is desired. On two-way switches state whether right-hand, left-hand or neutral switch is required.

Discount.....



## Bar Current Conductor Material

As Applied to

### Nos. 911 and 914 Steelbeam Tongue Switches

For use with Electric Hoists but NOT with Electric Trolleys

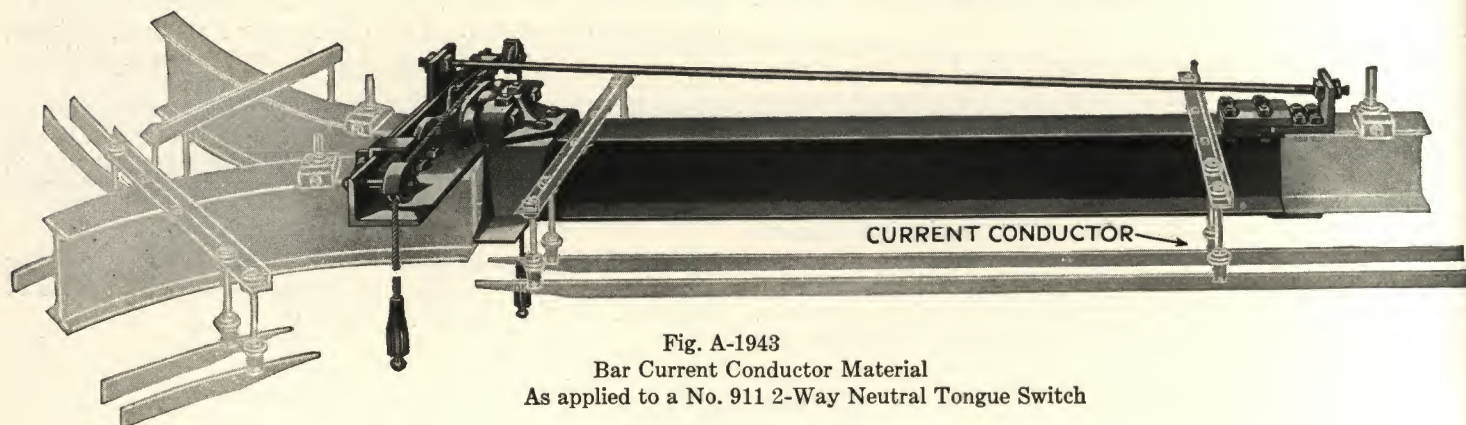


Fig. A-1943

Bar Current Conductor Material

As applied to a No. 911 2-Way Neutral Tongue Switch

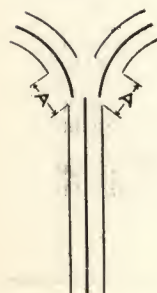


Fig. A-1944  
2-Way Neutral



Fig. A-1945  
2-Way Right Hand

#### Plan Views

The heavy and center lines in these views indicate the Steelbeam track.

The lighter and outer lines, on either side of the heavy lines, indicate the bar current conductors.

Spaces marked A show break in current conductors. Hoisting cannot be done in these spaces.



Fig. A-1946  
2-Way Left Hand

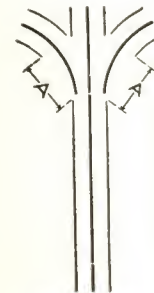


Fig. A-1947  
3-Way

The above illustration shows how bar current conductors are applied to R-W No. 911 and No. 914 Steelbeam Tongue Switches (illustrated and described on the preceding two pages). While the above view shows only a neutral 2-way switch, yet the bar conductors are applied to the other three styles of tongue switches (i. e.: 2-way Right Hand; 2-way Left Hand; 3-way Switches) in a like manner. Notice that the conductors are below the bottom of the track.

This form of mounting permits the use of electrical equipment with short throw switches, which are much less expensive than the long throw switches, which are required when the bar current conductors are mounted in the regular manner.

The electric current is available at all points except for a short distance along the curved tracks where the curve joins the movable end of the switch. The "A" dimensions on the plan views show just how far the current conductors extend and that indicates the extent to which the electric current is available. Hoisting cannot be done in this space.

The heavy line in the plan views indicates the Steelbeam track. The light lines, on either side of the heavy line, indicate the bar current conductors.

#### List Price

Switches are priced on the preceding page. Current Conductor material is priced on page 370.

Discount.....



## R-W No. 916 Steelbeam Tongue Switches

With Large Throws to Accommodate Current Conductors Thruout the Whole Length of the Track  
For use WITH Electric Hoists and Electric Trolleys

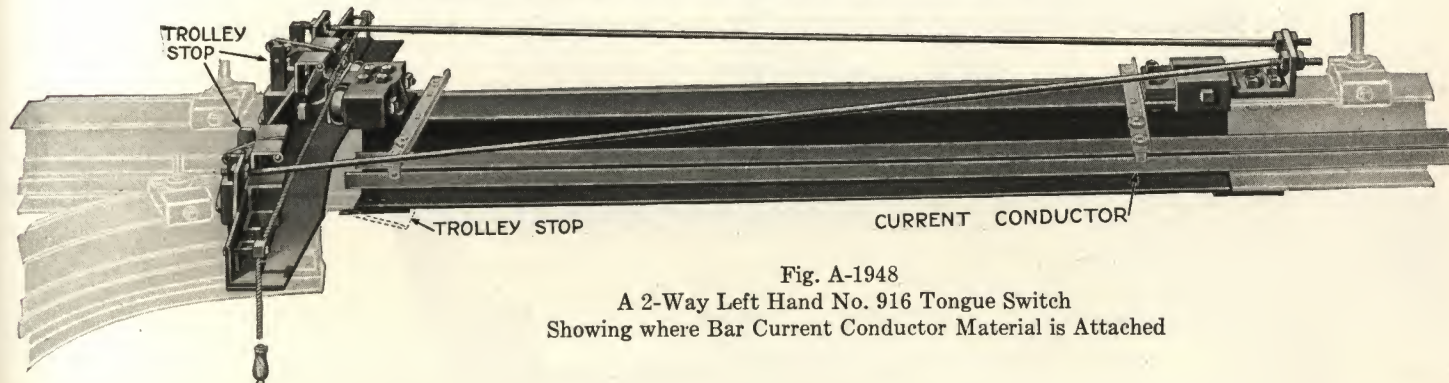


Fig. A-1948

A 2-Way Left Hand No. 916 Tongue Switch  
Showing where Bar Current Conductor Material is Attached

### Plan Views

The heavy and center lines in these views indicate the Steelbeam track.

The lighter and outer lines, on either side of the heavy lines, indicate the bar current conductors.

THE No. 916 Tongue Switches for Steelbeam track are designed with large throws to accommodate the use of electric current conductors thruout the track. They differ from the switches on the preceding pages in that when current conductors are used the electric current supply is uninterrupted and is available for use at any point on the track system. This necessitates long tongues and greater movement of the moving end of the switch and consequently these switches are considerably more expensive. The prices given below do not include the current conductor material but do include all the parts shown dark in the illustration.

The switches are made in four styles: 2-Way Neutral; 2-Way Right Hand; 2-Way Left Hand; 3-Way. (See diagrams above).

Switches are positively locked in any final position and the open ends of the track are protected by stops to prevent trolleys from running off.

Operating ropes are regularly furnished, as shown in the illustration, but can be had with extensions to be operated from a cab if so desired, at an extra price, depending upon the extension.

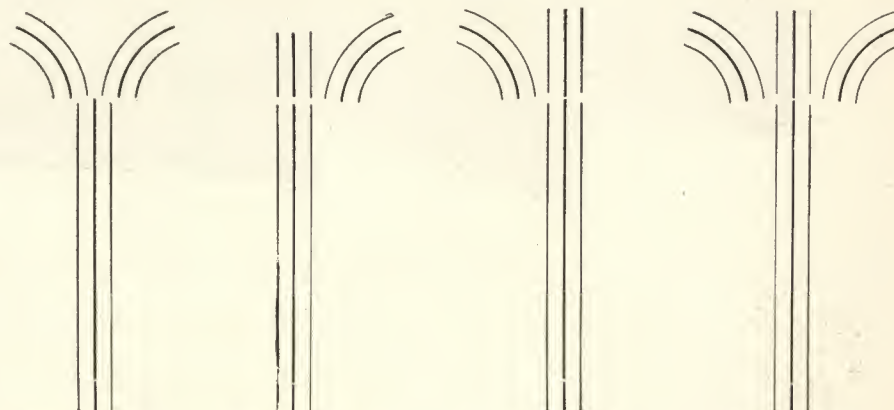


Fig. A-1949  
2-Way Neutral

Fig. A-1950  
2-Way Right Hand

Fig. A-1951  
2-Way Left Hand

Fig. A-1952  
3-Way

Track supports must be located on the stationary tracks as close as possible to the switches. (See Universal Clamps shown in phantom in the illustration).

No. 916 Tongue Switches are made in two standard sizes, one with a 20 inch throw and the other with a 26 inch throw. Special throws can be made to order.

State size of Steelbeam track (giving height and width); Length of throw required; whether 2-Way Neutral, 2-Way Right Hand, 2-Way Left Hand or 3-Way; Distance from the track to the floor so that we can determine the proper length of control rope to furnish.

### List Price

Prices Do Not Include Current Conductor Material

Number of Switch and Size of Steelbeam Track	For 2-Wire Systems				For 3 or 4-Wire Systems			
	Throw of Tongue between each way, 20 inches Tongue 12 feet long				Throw of Tongue between each way, 26 inches Tongue 15 feet long			
	2-Way Switches		3-Way Switches		2-Way Switches		3-Way Switches	
	Weight Lbs.	List Price	Weight Lbs.	List Price	Weight Lbs.	List Price	Weight Lbs.	List Price
916- 4"	175	\$112.00	190	\$131.00	195	\$119.00	220	\$137.00
916- 5"	225	119.00	240	137.00	275	125.00	315	144.00
916- 6"	295	126.80	310	144.80	365	131.40	395	149.40
916- 7"	370	137.00	395	159.00	425	144.25	475	164.50
916- 8"	420	149.20	445	186.20	470	155.60	520	192.60
916- 9"	475	182.80	500	226.80	525	191.40	575	235.40
916-10"	525	204.40	555	274.40	575	234.20	685	284.20
916-12"	595	275.00	635	325.00	645	300.00	775	350.00

Note—Minimum Headroom above top of Steelbeam track is 8 inches for 4, 5, 6 and 7 inch tracks, 8½ inches for 8 inch track and 9 inches for 9, 10 and 12 inch tracks.

Discount.....



## R-W Nos. 913 and 915 Stub Switches for Steelbeam Track

No. 913 Stub Switches are Made for Plain Hand Operated Trolleys  
No. 915 Stub Switches are Made With a Wider Opening for Use With Geared Trolleys

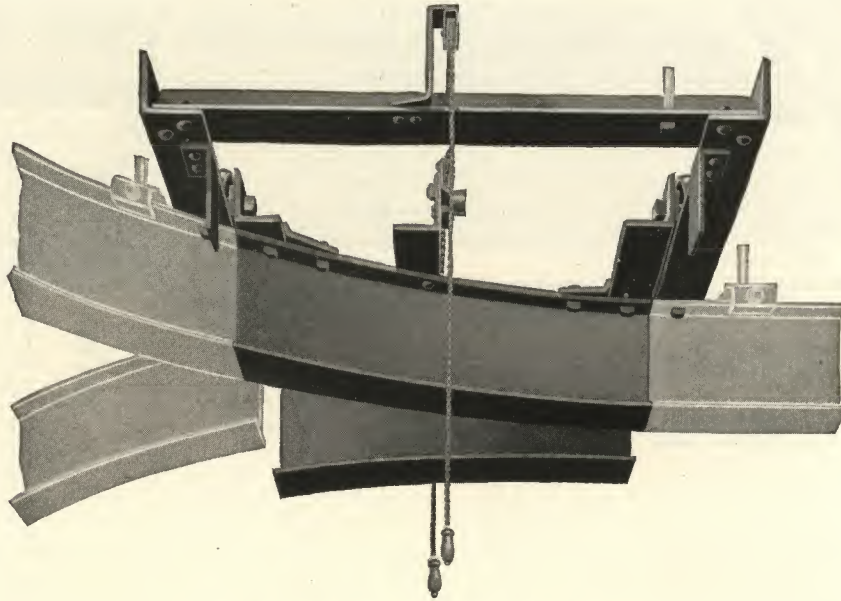


Fig. A-1953—Neutral, 2-Way Stub Switch

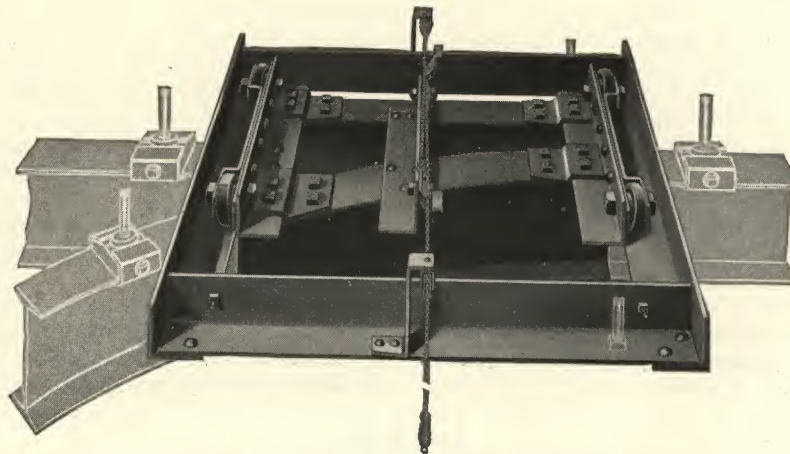


Fig. A-1954—Left Hand, 2-Way Stub Switch  
(also made Right Hand)

The Stub Switches, illustrated on this and the following page, are used when there is insufficient space for the standard tongue type of switch. In the stub switch no more space is required than would be required by the curved track. Switches are positively locked in each final position. Pulling on the hand chain on the side toward which the switch is to be moved first unlocks the switch and then moves it into the final position, where it is automatically locked. The movable part of the switch is supported by wheels rolling on a heavy angle iron frame-work. The two-way switches are made right-hand, left-hand and

neutral. Right- and left-hand switches connect with one straight track and one curved track. The neutral switch connects with two curved tracks, one turning toward the right and the other toward the left. The length of the stub switch depends upon the radius of the curve; the greater the radius, the longer the switch. Switches are made for any radius curve to which the track can be bent.

No. 913 Stub Switches are made for plain hand operated trolleys. No. 915 Switches are made with a wider opening for use with geared trolleys.



## R-W Nos. 913 and 915 Stub Switches for Steelbeam Track (Continued)

No. 913 Stub Switches are  
Made for Plain Hand Operated  
Trolleys

No. 915 Stub Switches are  
Made with Wider Openings for  
Use with Geared Trolleys

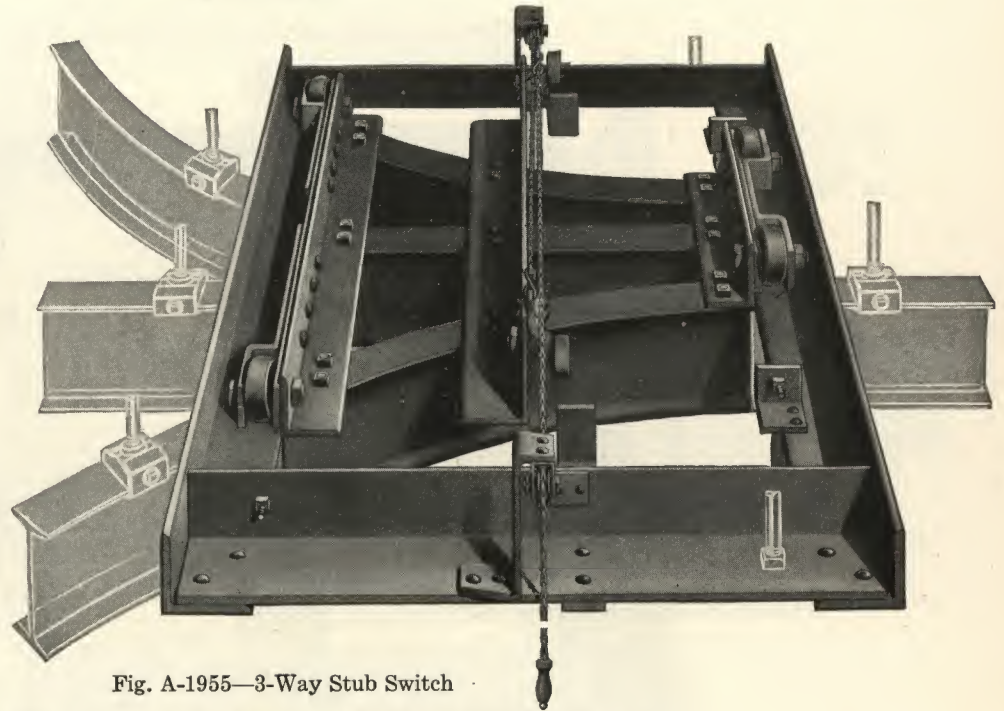


Fig. A-1955—3-Way Stub Switch

### No. 913 Stub Switches for Plain Hand Operated Trolleys

Number of Switch and Size of Steelbeam Track	Approx. Shipping Wt. Less Curved Track See page 358 for weight of Curved Tracks		List Price																
	2-Way Lbs.	3-Way Lbs.	Less Curved Track		Including 90° Curved Track														
			2-Way	3-Way	2-Way Right or Left Hand with one curve					2-Way Neutral with two curves					3-Way with two curves				
					Radius in Feet					Radius in Feet					Radius in Feet				
					3'	4'	5'	6'	7'	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'
913-4"	85	110	\$ 84.00	\$110.00	93.00	94.00	96.00	97.00	98.00	102.00	104.00	107.00	109.00	112.00	128.00	130.00	133.00	135.00	138.00
913-5"	100	130	84.00	110.00	95.00	97.00	98.00	100.00	102.00	106.00	109.00	112.00	115.00	120.00	132.00	135.00	138.00	141.00	146.00
913-6"	115	150	92.00	125.00	105.00	107.00	109.00	111.00	113.00	118.00	122.00	126.00	130.00	135.00	151.00	155.00	159.00	163.00	168.00
913-7"	130	170	100.00	140.00	116.00	118.00	121.00	123.00	126.00	132.00	137.00	141.00	146.00	152.00	172.00	177.00	181.00	186.00	192.00
913-8"	160	200	125.00	175.00	144.00	146.00	149.00	152.00	155.00	152.00	168.00	173.00	179.00	186.00	.....	218.00	223.00	229.00	236.00
913-9"	180	240	165.00	225.00	186.00	190.00	194.00	197.00	202.00	208.00	215.00	222.00	229.00	238.00	.....	275.00	282.00	289.00	298.00
913-10"	200	275	216.00	280.00	241.00	245.00	249.00	253.00	258.00	265.00	274.00	282.00	290.00	300.00	.....	.....	346.00	354.00	364.00
913-12"	225	300	240.00	310.00	270.00	275.00	280.00	285.00	292.00	300.00	310.00	320.00	330.00	362.00	.....	.....	390.00	400.00	415.00

**Note**—Always specify by number, stating size and weight of I-Beam Track or of Steelbeam, radius of curve and send sketch showing amount of curved track. Unless otherwise specified, switches for standard light sections will be sent. In ordering 2-Way Stub Switches state whether right hand, left hand or neutral is desired (see illustrations). Give distance from floor to track to determine chain length. Minimum Headroom required above top of track is 7 inches. These switches are for 4 or 5 inch track and have a throw of 6 3/4 inches; for 6 and 7 inch track, a throw of 8 1/4 inches; and for other sizes of track a throw of 10 1/4 inches.

Discount.....

### No. 915 Stub Switches for Geared Trolleys

Number of Switch and Size of Steelbeam Track	Approx. Shipping Wt. Less Curved Track See page 358 for weight of Curved Track		List Price																
	2-Way lbs.	3-Way lbs.	Less Curved Track		Including 90° Curved Track														
			2-Way	3-Way	2-Way Right or Left Hand with one Curve					2-Way Neutral with two Curves					3-Way with two Curves				
					Radius in Feet					Radius in Feet					Radius in feet				
					4'	5'	6'	7'		4'	5'	6'	7'		4'	5'	6'	7'	
915-6"	150	175	\$165.00	\$200.00	\$180.00	\$182.00	\$184.00	\$186.00		\$195.00	\$199.00	\$203.00	\$208.00		\$230.00	\$234.00	\$238.00	\$243.00	
915-7"	175	200	175.00	215.00	193.00	195.00	198.00	201.00		211.00	216.00	221.00	227.00		251.00	256.00	261.00	267.00	
915-8"	200	225	215.00	250.00	236.00	239.00	242.00	246.00		258.00	263.00	269.00	277.00		.....	298.00	304.00	312.00	
915-9"	210	260	240.00	300.00	265.00	268.00	272.00	276.00		290.00	297.00	304.00	313.00		.....	357.00	364.00	373.00	
915-10"	225	300	290.00	350.00	319.00	323.00	327.00	332.00		348.00	356.00	364.00	375.00		.....	.....	424.00	435.00	
915-12"	255	380	335.00	385.00	370.00	375.00	380.00	387.00		405.00	415.00	425.00	438.00		.....	.....	475.00	488.00	

**Note**—Always specify by number, stating size and weight of I-Beam Track or of Steelbeam, radius of curve and send sketch showing amount of curved track. Unless otherwise specified, switches for standard light sections will be sent. In ordering 2-Way switches state whether right, left hand or neutral is desired (see illustrations). Give distance from floor to track to determine chain length. Minimum Headroom required above top of track is 7 inches. Throw of switch will be made to accommodate the trolley which is to be used.

Discount.....

**Special Notice**—All weights on this page are only approximate for an average size curve and only include the amount of curved track in the switch.

*R-W Switches are noted for the ease and smoothness of their operation*



## No. 917 Stub Switches

For Use with Equipment Using  
Electric Hoists or Current Conductors

Two Sizes:  
20" Throw  
and  
26" Throw

Four Styles:  
2-Way Neutral  
2-Way Right Hand  
2-Way Left Hand  
3-Way Switches

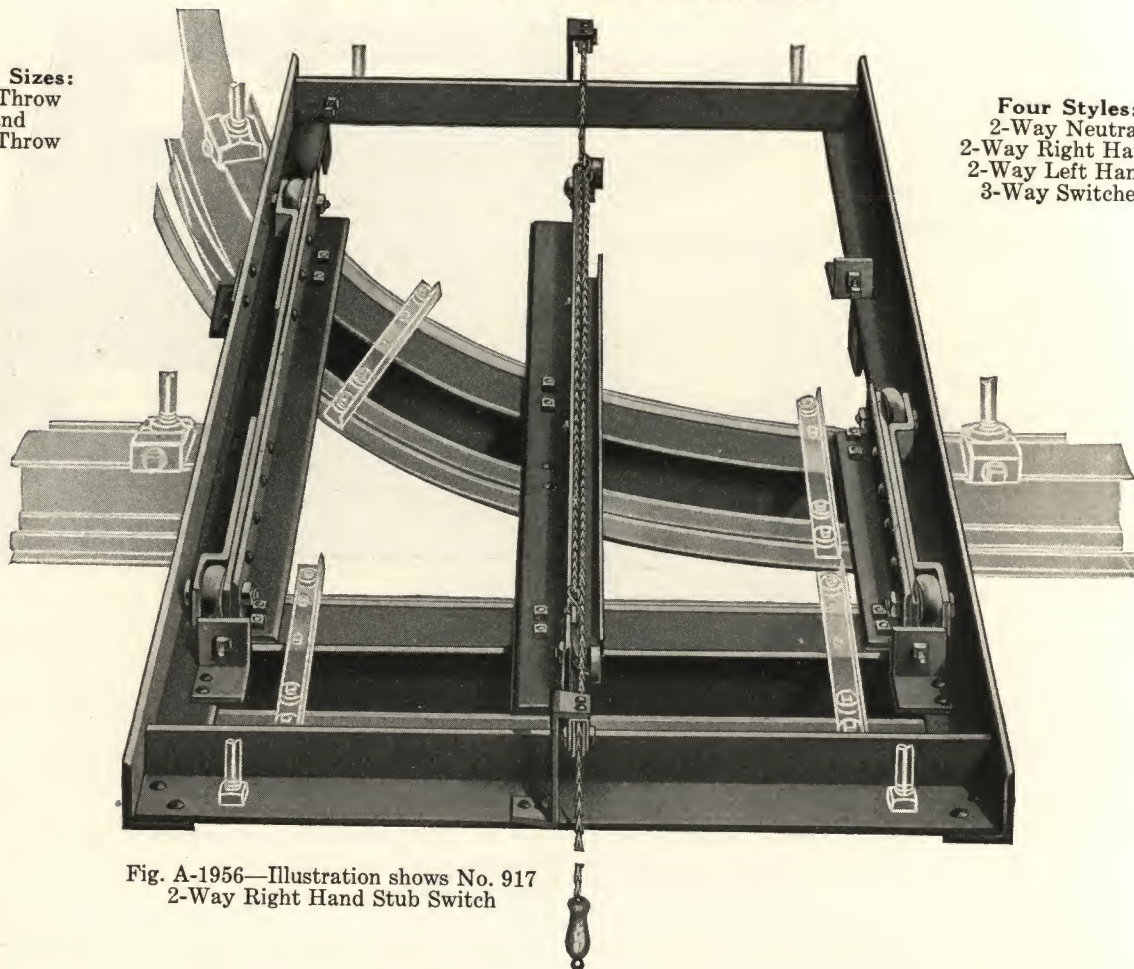


Fig. A-1956—Illustration shows No. 917  
2-Way Right Hand Stub Switch

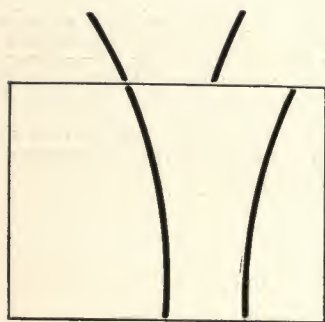


Fig. A-1957  
2-Way Neutral

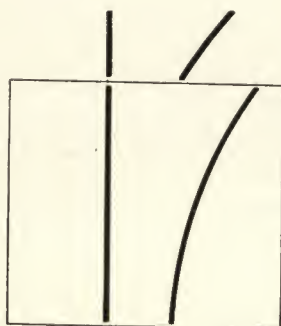


Fig. A-1958  
2-Way Right Hand

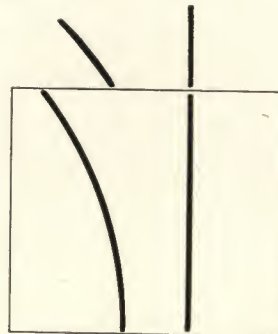


Fig. A-1959  
2-Way Left Hand

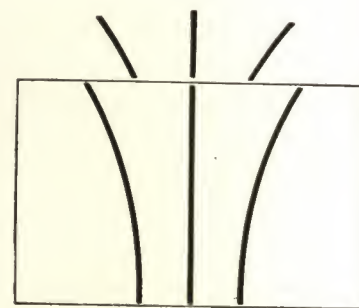


Fig. A-1960  
3-Way

No. 917 Stub Switches are designed for Steelbeam conveying equipment using electric hoists or for electric travellers requiring current conductors along the sides of the track. The movement of the throw of the switches is extra large so as to provide clearance for the collector and to keep the conductors far enough apart.

Flat bar or "T" bar conductors should be used in the switches, but the conductor material is priced separately

and is not included in the price of the switches (conductor material priced on page 370).

Made in four styles, as shown by above diagrams. Any radius curve 6 feet or larger can be used. The length of the gap between the stationary tracks varies with the radius of the curve.

(Continued on next page)



## No. 917 Stub Switches (Continued)

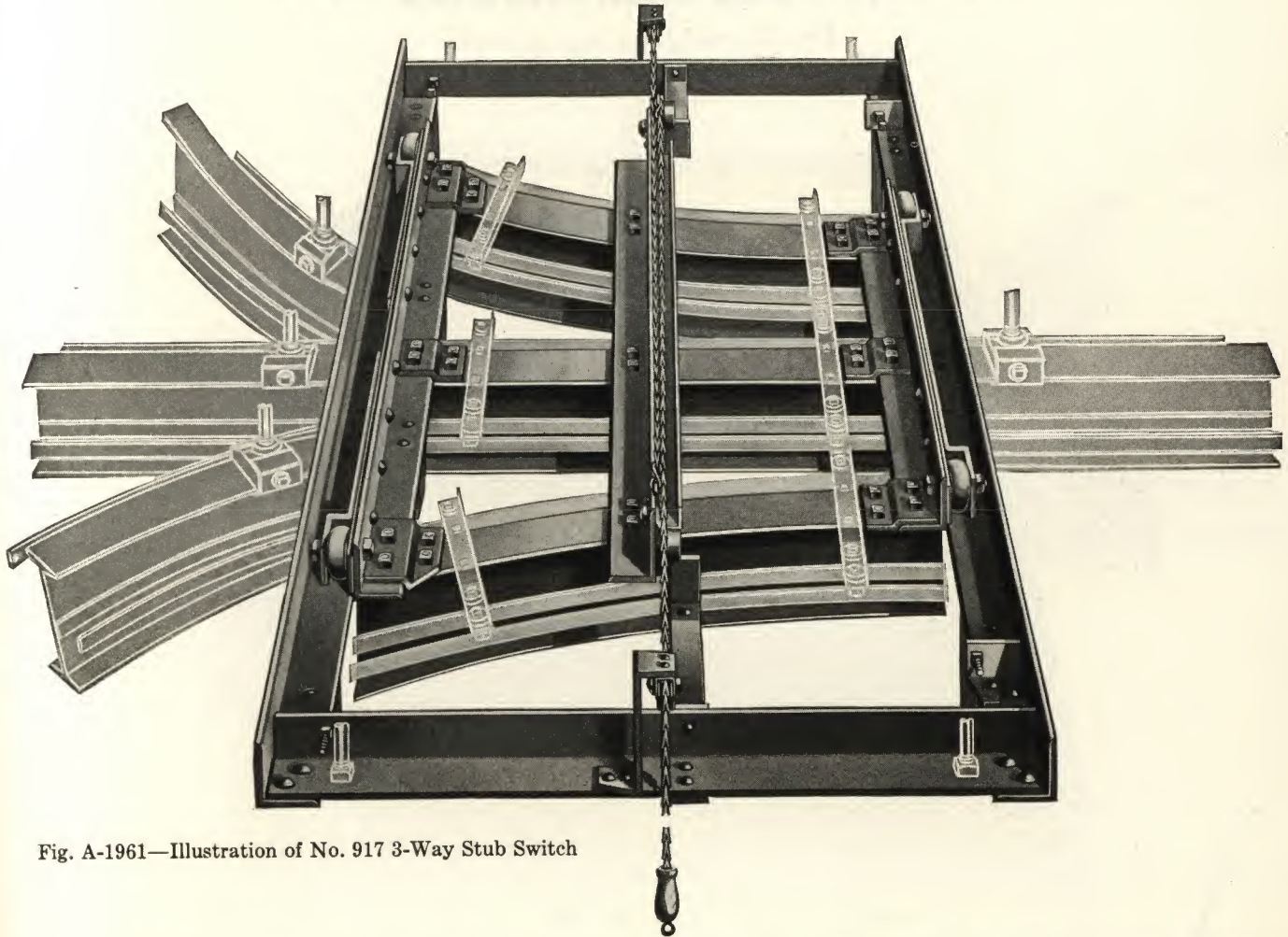


Fig. A-1961—Illustration of No. 917 3-Way Stub Switch

Switches are positively locked in any final position and the open ends of the tracks are protected by stops to prevent trolleys from running off of them.

Operating chains are regularly furnished, as shown in the large illustrations, but chain can be furnished with extension to be operated from a cab, if so required, at an extra price, depending upon the extension required.

The frame work of the switches rests on, and is fastened to, the ends of the stationary tracks. Track supports should be located on the stationary tracks as close as possible to the switches (see Universal Clamps shown in phantom in the illustrations). Additional bolts in the four corners of the switch, as is also shown in phantom in the illustrations, are also required.

These switches are made in two standard sizes; one with a 20 inch throw and the other with a 26 inch throw.

The curved tracks and a section of the straight track is built into the switches, but on account of the various radius of curves the switches are priced without curved track for convenience in pricing. Tabulated prices are also given including 90° of curved track in different radius of curves.

No. 917 Stub Switches are made only for 4, 5, 6 and 7 inch I-Beam or Steelbeam track with capacities of  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1 and  $1\frac{1}{2}$  tons. For capacities over  $1\frac{1}{2}$  tons and for I-Beam or Steelbeam track 8 inches or more in size, see the No. 918 Stub Switches on the following two pages.

### No. 917 Stub Switches

Number of Switch and Size of Steelbeam Track	Approx. Shipping Wt. Less Curved Track See page 358 for weight of Curved Tracks		*List Price for Switches with 20 inch Throw. (Less current conductors)																
	2-Way Lbs.	3-Way Lbs.	Less Curved Track		Including 90° Curved Track														
			2-Way	3-Way	2-Way Right or Left Hand with one curve					2-Way Neutral with two curves					3-Way with two curves				
					Radius in Feet					Radius in Feet					Radius in Feet				
					6'	7'	8'	9'	10'	6'	7'	8'	9'	10'	6'	7'	8'	9'	10'
917-4"	175	210	\$184.00	\$331.00	197.00	198.00	200.00	202.00	204.00	209.00	212.00	216.00	220.00	224.00	356.00	359.00	363.00	367.00	371.00
917-5"	190	235	191.00	342.00	207.00	209.00	211.00	213.00	216.00	222.00	227.00	231.00	236.00	241.00	374.00	378.00	382.00	387.00	392.00
917-6"	205	265	200.00	354.00	219.00	221.00	224.00	227.00	230.00	238.00	243.00	248.00	254.00	260.00	392.00	397.00	402.00	408.00	414.00
917-7"	225	285	209.00	381.00	232.00	235.00	239.00	242.00	246.00	255.00	261.00	268.00	275.00	283.00	427.00	433.00	440.00	447.00	455.00

Note—Always specify by number, stating size and weight of I-Beam Track or of Steelbeam, radius of curve and send sketch showing amount of curved track. Unless otherwise specified, switches for standard light sections will be sent. In ordering 2-Way Stub Switches state whether right hand, left hand or neutral is desired (See illustrations). Give distance from floor to track to determine chain length. Minimum HeadRoom required above top of track is 7 inches.

All weights on this page are only approximate for an average size curve and only include the amount of curved track in the switch.

\*For List Prices of 2-Way Switches with 26 inch Throw add to the prices given above \$19.00. For 3-Way Switches with 26 inch Throw add to the prices given above \$31.00.

Discount.....



## No. 918 Stub Switches

For Use with Equipment Using  
Electric Hoists or Current Conductors

Two Sizes:  
20" Throw  
and  
26" Throw

Four Styles:  
2-Way Neutral  
2-Way Right Hand  
2-Way Left Hand  
3-Way Switches

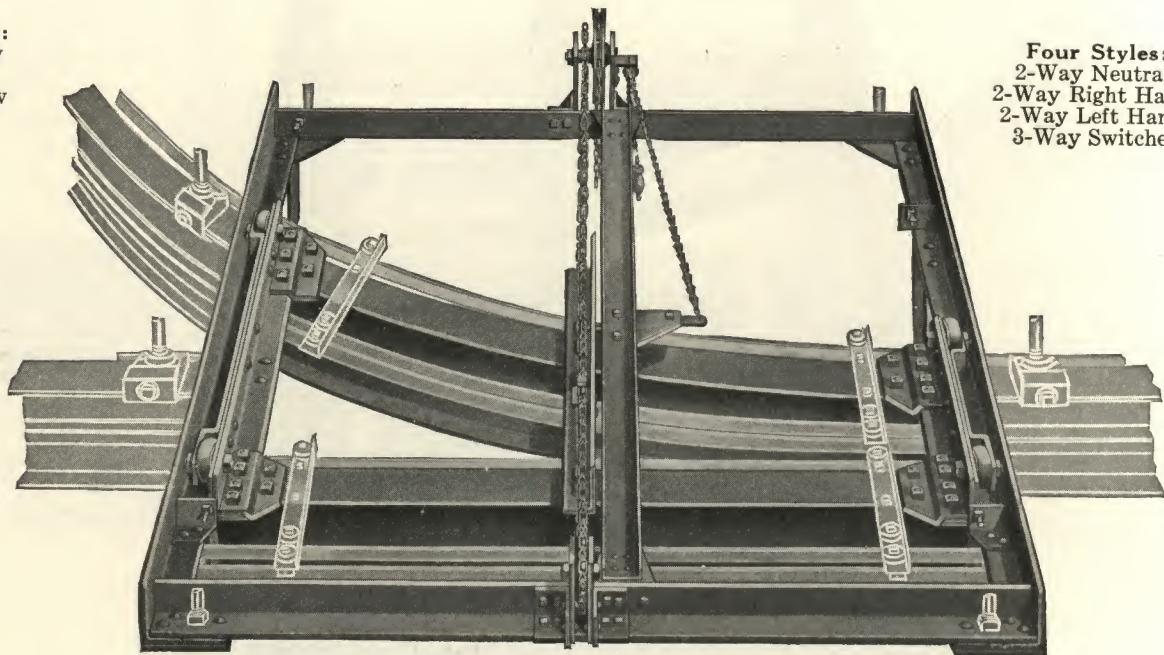


Fig. A-1962—Illustration of No. 918 2-Way Right Hand Stub Switch

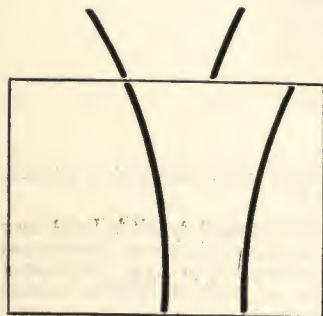


Fig. A-1963  
2-Way Neutral

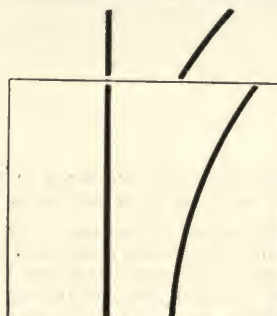


Fig. A-1964  
2-Way Right Hand

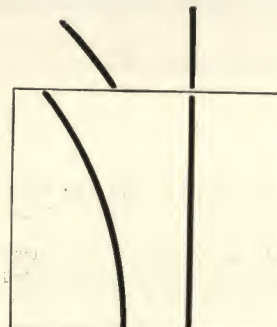


Fig. A-1965  
2-Way Left Hand

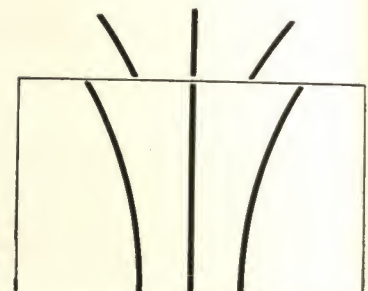


Fig. A-1966  
3-Way

No. 918 Stub Switches are the same as the No. 917 switches, illustrated on the preceding two pages, except that they are of heavier construction, are designed for larger sizes of I-Beam or Steelbeam track and heavier loads and the switches are operated by a continuous hand chain with reducing sprockets. This is required on account of the weight of the moveable part of the switches. The latching mechanism is operated separately from the moving mechanism.

Switches are made for 8, 9, 10 and 12 inch I-Beams and in capacities of 1½, 2, 3 and 4 tons.

Designed for Steelbeam conveying equipment using electric hoists or for electric travellers requiring current

conductors along the sides of the track. The movement of the throw of the switches is extra large so as to provide clearance for the collector and to keep the conductors far enough apart.

Flat bar or "T" bar conductors should be used in the switches, but the conductor material is priced separately and is not included in the price of the switches. (Conductor material is priced on page 370).

Made in two sizes: 20 inch throw; 26 inch throw, and each size in four styles, as shown by above diagrams. Any radius curve 6 feet or larger can be used. The length of the gap between the stationary track varies with the radius of the curve.

(Continued on next page)



## No. 918 Stub Switches (Continued)

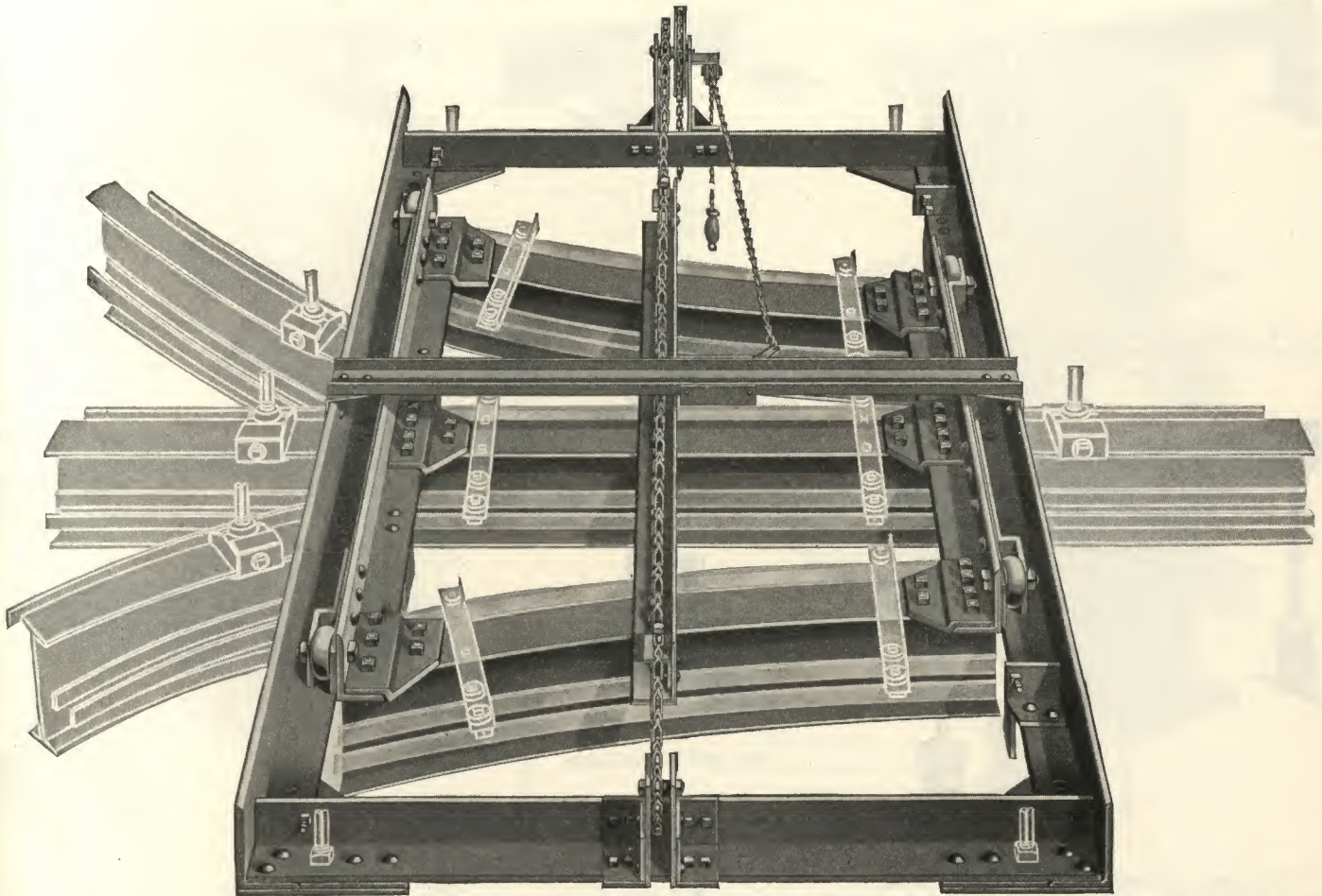


Fig. A-1967—Illustration of No. 918 3-Way Stub Switch

Switches are positively locked in any final position and the open ends of the tracks are protected by stops to prevent trolleys from running off of them.

Operating chains are regularly furnished, as shown in the large illustrations, but chain can be furnished with extension to be operated from a cab, if so required, at an extra price, depending upon the extension required.

The frame work of the switches rests on, and is fastened to, the ends of the stationary tracks. Track supports should be located on the stationary tracks as close as possible to the switches (see Universal Clamps shown in phantom in the illustration). Additional bolts in the four corners of the switch, as is also shown in phantom in the illustration, are also required.

These switches are made in two standard sizes; one with a 20 inch throw and the other with a 26 inch throw.

The curved tracks and a section of the straight track is built into the switches, but on account of the various radius of curves the switches are priced without curved track for convenience in pricing. Tabulated prices are also given including 90° of curved track in different radius of curves.

No. 918 Stub Switches are made only for 8, 9, 10 and 12 inch I-Beam or Steelbeam track with capacities over 1½ and 2, 3 and 4 tons. For capacities less than 1½ tons and for I-Beam or Steelbeam track 7 inches or under in size, see the No. 917 Stub Switches on the preceding two pages.

### No. 918 Stub Switches

Number of Switch and Size of Steelbeam Track	Approx. Shipping Wt. Less Curved Track See page 358 for weight of Curved Tracks		*List Price for Switches with 20 inch Throw. (Less current conductors)																
	2-Way Lbs.	3-Way Lbs.	Less Curved Track		Including 90° Curved Track														
			2-Way	3-Way	2-Way Right or Left Hand with one curve					2-Way Neutral with two curves					3-Way with two curves				
					Radius in Feet					Radius in Feet					Radius in Feet				
					6'	7'	8'	9'	10'	6'	7'	8'	9'	10'	6'	7'	8'	9'	10'
918- 8'	675	795	\$254.00	\$440.00	281.00	285.00	289.00	294.00	298.00	308.00	316.00	324.00	333.00	342.00	494.00	502.00	510.00	519.00	528.00
918- 9'	760	880	282.00	520.00	314.00	318.00	323.00	329.00	334.00	346.00	355.00	365.00	375.00	386.00	584.00	593.00	603.00	613.00	624.00
918-10'	845	965	322.00	617.00	359.00	364.00	370.00	376.00	382.00	396.00	405.00	418.00	430.00	442.00	691.00	702.00	713.00	725.00	737.00
918-12'	930	1050	352.00	705.00	397.00	404.00	411.00	418.00	426.00	442.00	455.00	470.00	486.00	500.00	795.00	808.00	823.00	840.00	855.00

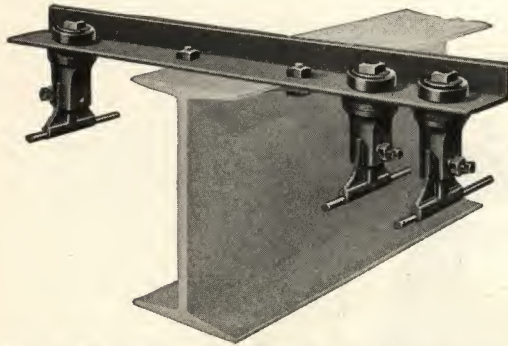
Note—Always specify by number, stating size and weight of I-Beam Track or of Steelbeam, radius of curve and send sketch showing amount of curved track. Unless otherwise specified, switches for standard light sections will be sent. In ordering 2-Way Stub Switches state whether right hand, left hand or neutral is desired. (See illustrations). Give distance from floor to track to determine chain length. Minimum Head Room required above top of track is 12½ inches.

All weights on this page are only approximate for an average size curve and only include the amount of curved track in the switch.  
\*For List Prices of Switches with 26 inch Throw add to the prices given above \$19.00 to the price of 2-Way Switches for 8" I-Beam, \$19.00 for 9" I-Beam, \$35.00 for 10" I-Beam and \$75.00 for 12" I-Beam. For 3-Way Switches with 26 inch Throw add to the prices given above, \$31.00 for 8" I-Beam, \$31.00 for 9" I-Beam, \$50.00 for 10" I-Beam and \$110.00 for 12" I-Beam.

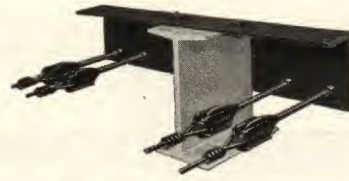
Discount.....



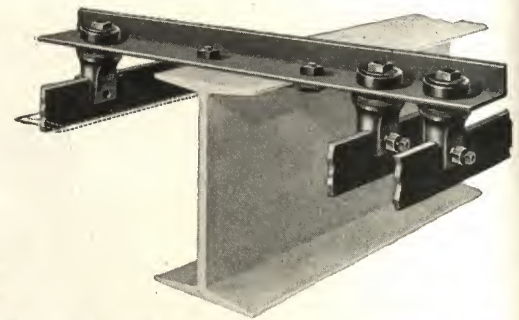
## Conductor Material for Steelbeam or I-Beam Track



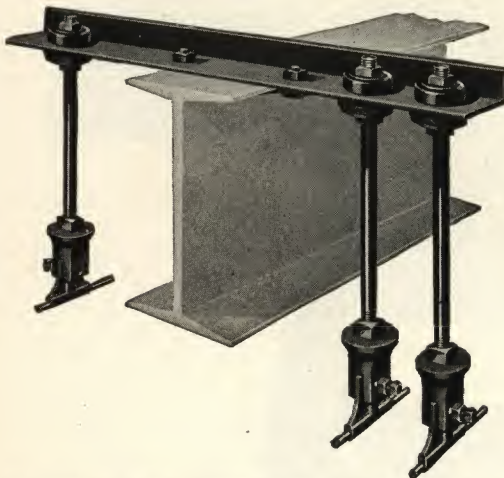
No. 806 (High) Intermediate Conductor Arm complete with Steelbeam Clamps, Three Insulators and Three Wire Clamps



No. 810 Wire Take-Ups, Insulators and End Conductor Arm



No. 808 (High) Intermediate Conductor Arm, complete with Steelbeam Clamps, and 3 Insulators for 3 Conductor Bars



No. 807 (Low) Intermediate Conductor Arm, complete with Steelbeam Clamps, Three Insulators and Three Wire Clamps



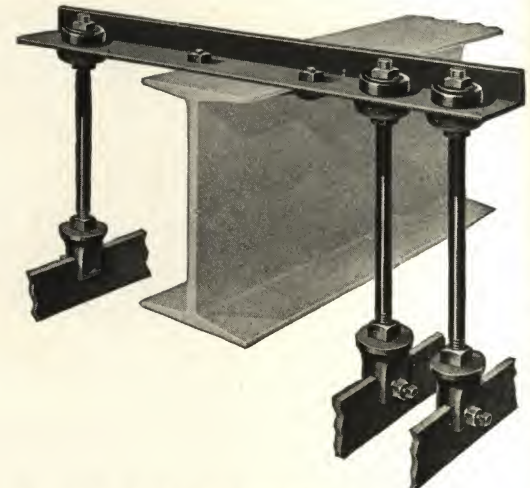
No. 800 Insulator and Holder



No. 800 Wire Clamp



No. 800 Terminal Lug for Wire



No. 809 (Low) Intermediate Conductor Arm, complete with Steelbeam Clamps and 3 Insulators for 3 Conductor Bars

Four types of current conductors to be used in connection with electric hoists operating on Steelbeam track of any size are illustrated on this page. Two of the types are for supporting copper wire conductors and two types are for supporting steel bar conductors. The two high conductors (Nos. 806 and 808) are suitable for use on track systems without switches or with track systems having wide throw switches with clearance enough to allow collectors to pass through the switches. The two low conductors (Nos. 807 and 809) are dropped low enough so that the current collectors will pass beneath the tracks when trolley operates over curves at switch points. These two types of con-

ductors (Nos. 807 and 809) are intended for use with track systems with short throw switches but conductors are omitted along the curves immediately adjoining the switches, which means that no hoisting can be done at these points.

Wire conductors are suitable for straight tracks only, but the flat bar conductors can be used with either straight or curved tracks. When track systems consist of both straight and curved tracks, it is possible to use wire conductors along the straight track and bar conductors around the curves.

### List Price of Wire Conductor Material

No. 800 Wire Clamps (Bronze), weight, 6 oz., each pair.....		\$ .40
No. 800 Insulators (for wire clamps), weight, 1 lb., each.....		1.10
Nos. 806, 807 Intermediate Conductor Arm, with Steelbeam Clamps, 2 Insulators and Wire Clamps, each, No. 806.....	\$5.85	No. 807..... 6.20
Nos. 806, 807 Intermediate Conductor Arm, with Steelbeam Clamps, 3 Insulators and Wire Clamps, each, No. 806.....	7.50	No. 807..... 8.00
Nos. 806, 807 Intermediate Conductor Arm, with Steelbeam Clamps, 4 Insulators and Wire Clamps, each, No. 806.....	9.20	No. 807..... 9.85
No. 810 Wire Take-Up, including Take-Up Insulator, each.....		1.45
No. 810 End Conductor Arm, Steelbeam Clamps and 2 Wire Take-Ups. Complete.....		7.00
No. 810 End Conductor Arm, Steelbeam Clamps and 3 Wire Take-Ups. Complete.....		8.90
No. 810 End Conductor Arm, Steelbeam Clamps and 4 Wire Take-Ups. Complete.....		11.00
No. 4 Hard Copper Wire, per foot.....		.06
No. 800 Terminal Lugs for Wire, each.....		.14

Note—When Ordering State: Width and height of Steelbeam Track; Distance from center of track to center of conductor; distance between centers of conductors; Type and make of hoist.

Wire Conductor should be used on straight track only, No. 808 Curved Conductor Bar for the curves.

Maximum distance between Nos. 806, 807 Conductor Arms, 30 feet, but 20 feet is recommended.

### List Price of Bar Conductor Material

No. 800 Insulators (for flat bar conductor), weight, 1 lb., each.....			No. 809..... \$1.10
Nos. 808, 809 Intermediate Conductor Arm, with Steelbeam Clamps, without insulators for 2 Bar Conductors. Each; No. 808.....	\$3.00	No. 809.....	3.35
Nos. 808, 809 Intermediate Conductor Arm, with Steelbeam Clamps, without insulators for 3 Bar Conductors. Each; No. 808.....	3.25	No. 809.....	3.70
Nos. 808, 809 Intermediate Conductor Arm, with Steelbeam Clamps, without insulators for 4 Bar Conductors. Each; No. 808.....	3.45	No. 809.....	4.10
Nos. 808, 809 Intermediate Conductor Arm, including 2 Insulators. Each, No. 808.....	5.10	No. 809.....	5.40
Nos. 808, 809 Intermediate Conductor Arm, including 3 Insulators. Each, No. 808.....	6.35	No. 809.....	6.80
Nos. 808, 809 Intermediate Conductor Arm, including 4 Insulators. Each, No. 808.....	7.60	No. 809.....	8.20
No. 808 *1/4" x 2" Straight Flat Conductor Bar, per ft.....	punched..... .25	Not punched.....	.16
No. 808 *Curved, Flat Conductor Bar, per ft.....	punched..... .92	Not punched.....	.80
No. 808 Joints for Conductor Bar, each.....			.14
No. 800 Terminal Lugs for Wire, each.....			.14
Nos. 808, 809 Complete 2-Bar Conductors, including Arms, Clamps and Insulators, per running foot.....	Straight..... 1.25	Curved.....	3.45
Nos. 808, 809 Complete 3-Bar Conductors, including Arms, Clamps and Insulators, per running foot.....	Straight..... 1.75	Curved.....	4.85
Nos. 808, 809 Complete 4-Bar Conductors, including Arms, Clamps and Insulators, per running foot.....	Straight..... 2.20	Curved.....	6.20

Conductor Arms must not exceed 8' centers on straight runs, nor 4' on curved tracks.

Each 90° Curve must be supported by at least 3 conductor arms.

\*For No. 808—1 1/2" x 1 1/4" x 1/4" Tee Conductor Bars add 20% to prices of Flat Conductor Bars.

When ordering Conductor Arms state: Distance from center of track to center of conductor; distance between centers of conductors.

Discount.....



R-W No. 912

## Standard Turn-Tables for Steelbeam and I-Beam Track

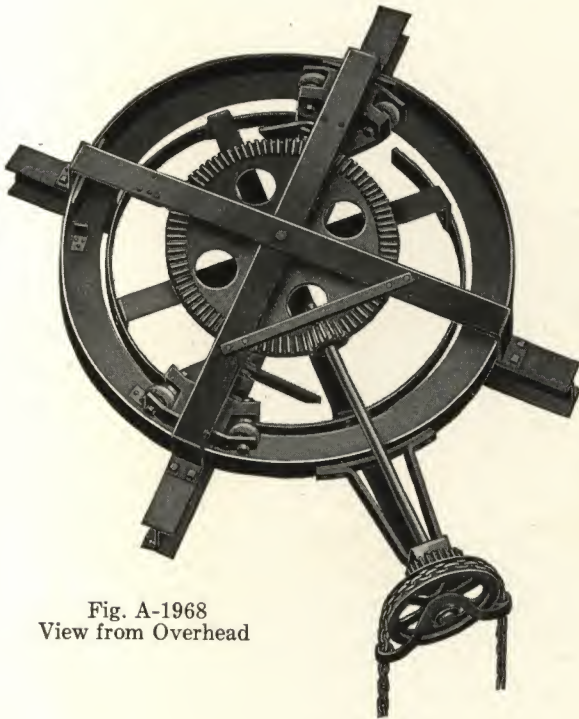


Fig. A-1968  
View from Overhead



Fig. A-1969  
View from Underneath

This turn-table is operated by a hand chain through a series of spur and bevel gears. The movable part of the turn-table turns through an arc of 90 degrees and is held positively at each final position by spring-actuated pins. An extra force applied to the hand chain releases the locking pins and continuation of the pull on the hand chain moves the turn-table to the desired position. Turn-tables

are regularly made to connect with four tracks at right angles to each other. Special turn-tables can be built to meet most requirements.

Turn-tables are equipped with positive safety stops to prevent trolleys from running off open ends of the tracks. Finish, black japan.

### List Price

No. of Turn-Table and Size of Steelbeam or I-Beam	Minimum Clearance Above Top of Steelbeam	Capacity, Lbs.	List Price—36-Inch Diameter
912— 4".....	7"	500	\$212.50
912— 5".....	7"	1000	212.50
912— 6".....	7"	2000	225.00
912— 7".....	7"	3000	237.50
912— 8".....	7"	4000	281.25
912— 9".....	7"	6000	300.00
912—10".....	7"	8000	325.00

Discount.....

**Note**—Always specify by number, stating size and weight of Steelbeam or I-Beam. Unless otherwise specified, turn-tables for Standard light sections will be sent. Also state maximum weight of load carried.

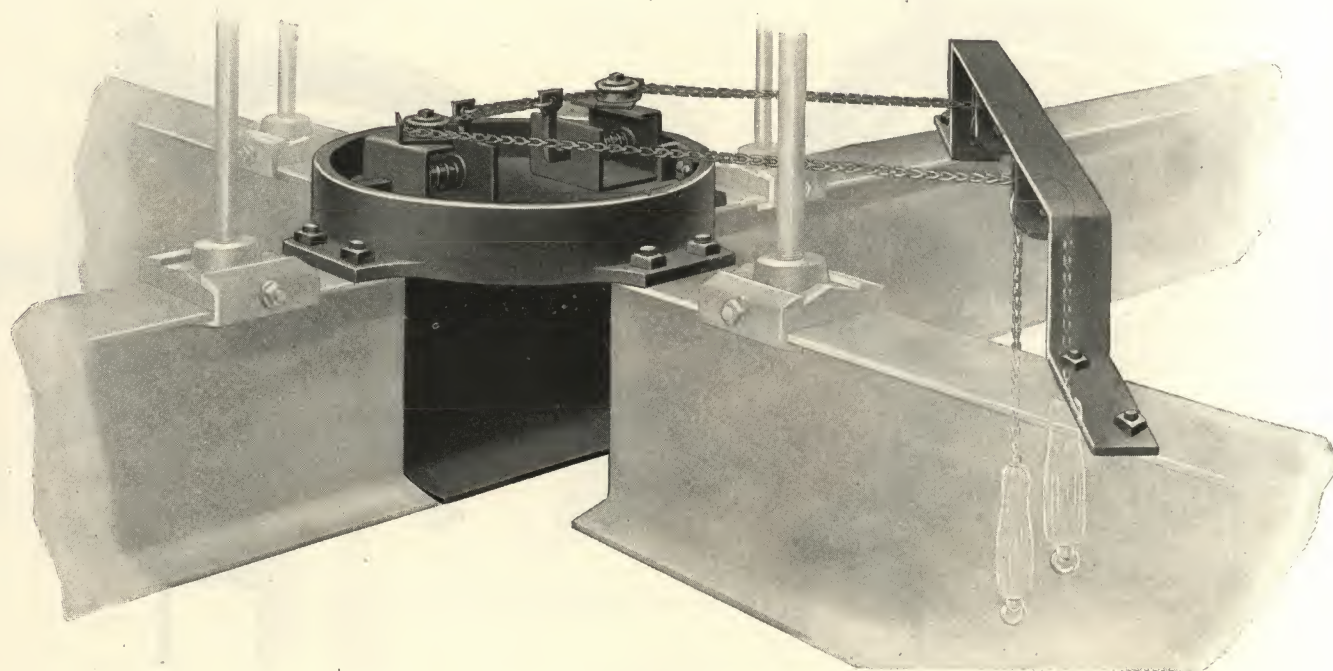
List price covers turn-tables with four openings for two runs of track at right angles to each other. Price on additional openings, quoted on request.

**Cross-Overs are shown on following page**

*Unhesitating, Sure, Positive, Easy Operation*



## R-W No. 940 Steelbeam Cross-Over (Can be used with Standard I-Beam Track)



The Cross-Over for Steelbeam or I-Beam track is used where two lines of track cross at right angles. The Cross-Over should not be confused with the turn-table illustrated on page 371, the difference between the two being that the turn-table is used to turn the load, but the load cannot be turned on the Cross-Over.

It is always necessary to line up the Cross-Over with the track on which the trolley is running before entering the trolley on the cross-over. Cross-Over is operated by hand chain and is positively locked in each position.

**Note**—Turn Tables are shown on preceding page.

### List Price

Size Steelbeam or I-Beam	Gap	Minimum Headroom Above Top of Track	Approximate Weight	Price, Each
4", 5", 6" or 7".....	12"	5½"	90 lbs.	\$80.00
8", 9" or 10".....	12"	5½"	100 lbs.	90.00

Discount.....



## Steelbeam Swing-Out Device

R-W No. 976 Automatic Type

R-W No. 977 Non-Automatic Type



No. 976 Automatic Steelbeam Swing-Out Device



No. 977 Non-Automatic Steelbeam Swing-Out Device

When Steelbeam or I-Beam track goes through door openings it is best to build the doors in pairs, one door opening to the right and the other to the left. The doors should be notched at the center of the opening to fit around the tracks.

When it is impossible to make the doors in pairs and a single doors must be used, swing-out devices as shown in the illustrations can be furnished. The swing-out device No. 976 as shown in the illustration, is intended for use with automatic closing sliding fire doors. The device is arranged so that the door in closing, trips a lever which is attached to the weight cord. When the lever is tripped, the weights release a latch on the top of the swinging section of track and pull the track open. In the illustration above a swing-out device is shown on both sides of the wall, but

if the fire door is on one side of the wall only, it is only necessary to use the swing-out device on one side of the wall. When the swing-out section of the track is open, a stop closes the main line of track to prevent the carriers from being run out of the opening.

The No. 977 Non-Automatic Swing-Out Device is built similar to the No. 976 except that the weights and trip are omitted, and a hand-chain with pull is substituted to release the latch.

Swing-Out Devices are made right or left-hand. A sketch should be furnished with each order showing the way the door or doors slide, also the distance from the top of the opening to the top of the track (minimum distance; non-automatic type  $3\frac{1}{4}$ ", automatic type, 6").

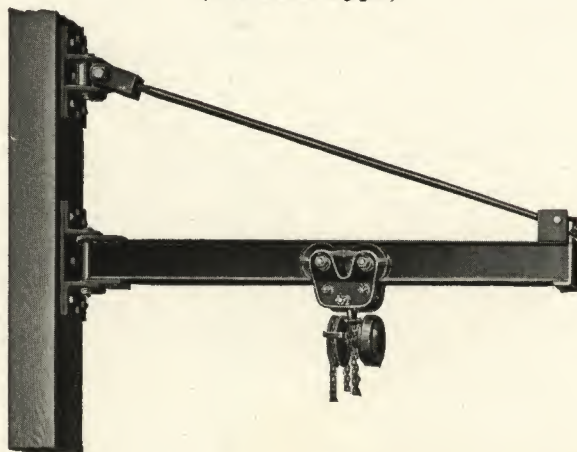
### List Price

No. 976 Automatic Steelbeam Swing-Out Device.....	\$85.00
No. 977 Non-Automatic Steelbeam Swing-Out Device.....	60.00
Note—Price includes Swing-Out Device for one side of wall only.	
	Discount.....

*Swing-Out Devices, by allowing Fire Doors to close, have saved thousands of dollars*



## R-W No. 939 Steelbeam Swinging Jib Crane (Tie Rod Type)



The jib crane is one of the most economical means of handling loads within a small area. The crane itself is inexpensive and the cost of installation is small. The R-W No. 939 Standard Jib Crane with tie rod support for outer end of boom is the most commonly used form, but in a

great many cases, such as machine shops and factories, there is insufficient room above the boom for the tie rod. In such cases, the type of crane shown on page 376 with a curved track for supporting the outer end of the boom, meets the condition in a most satisfactory manner.

### List Price Jib Cranes with Tie Rods Less Trolleys and Hoists

Size of Steelbeam	Weight of Steelbeam per foot	CAPACITY IN LBS.			
		1000	2000	3000	4000
		Maximum Crane Length Overall			
5"	10. lbs.	13' 1"	11' 8"		
6"	12.5 lbs.	16' 11"			
7"	15.3 lbs.	20' 0"	15' 4"	11' 3"	
8"	18.4 lbs.		18' 5"	14' 5"	11' 8"
9"	21.8 lbs.		20' 0"	17' 9"	14' 8"
10"	25.4 lbs.			20' 0"	17' 10"
12"	31.8 lbs.				20' 0"

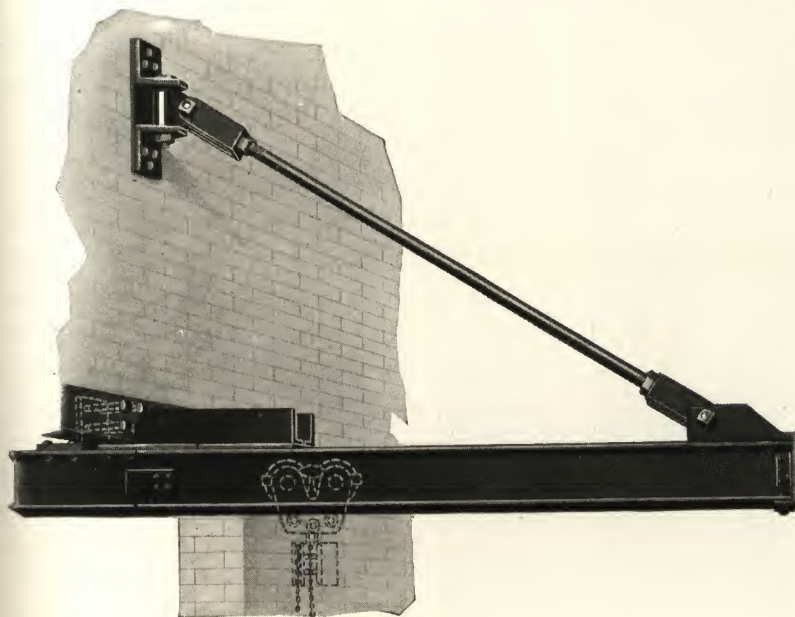
### R-W No. 939 Jib Crane

Length Overall	Approx. Height Overall	Approx. Weight Lbs.	Capacity Lbs.	List Price	Length Overall	Approx. Height Overall	Approx. Weight Lbs.	Capacity Lbs.	List Price
10'	5' 0"	240	1000	\$100.00	10'	5' 5"	375	3000	\$120.00
12'	5' 8"	265	1000	105.00	12'	6' 1"	450	3000	130.00
14'	6' 4"	330	1000	110.00	14'	6' 9"	495	3000	135.00
16'	7' 1"	360	1000	115.00	16'	7' 6"	585	3000	145.00
18'	7' 8"	435	1000	120.00	18'	8' 1"	705	3000	155.00
20'	8' 5"	470	1000	125.00	20'	8' 10"	765	3000	165.00
10'	5' 2"	300	2000	110.00	10'	5' 8"	445	4000	135.00
12'	5' 10"	365	2000	115.00	12'	6' 4"	530	4000	145.00
14'	6' 6"	405	2000	120.00	14'	7' 0"	580	4000	150.00
16'	7' 3"	490	2000	130.00	16'	7' 9"	695	4000	160.00
18'	7' 10"	535	2000	135.00	18'	8' 4"	865	4000	180.00
20'	8' 7"	640	2000	145.00	20'	9' 1"	940	4000	190.00

Discount .....



## R-W No. 969 Steelbeam Jib Crane Extends Thru Doorways Monorail Type



This crane is similar to the one on the opposite page except that this one is designed to be located on a wall on the outside of a building and to extend through a doorway to connect with the conveying track located on the inside of the building.

When it is necessary that the door be closed the crane can be swung out of the doorway and left laying parallel to the wall. Can also be kept in this position when not in use.

The ends of the stationary track are fitted with stops to prevent the trolley from running off the crane.

This crane can only be turned through an arc of 90° or in other words can be turned to one side only. Always send sketch showing which way crane is to swing. The trolley can only be run into crane when it is in line with the stationary track.

### List Price Jib Cranes with Tie Rods Less Trolleys and Hoists

Size of Steelbeam	Weight of Steelbeam per foot	CAPACITY IN LBS.			
		1000	2000	3000	4000
		Maximum Crane Length Overall			
5"	10. lbs.	13' 1"	11' 8"		
6"	12.5 lbs.	16' 11"			
7"	15.3 lbs.	20' 0"	15' 4"	11' 3"	
8"	18.4 lbs.		18' 5"	14' 5"	11' 8"
9"	21.8 lbs.		20' 0"	17' 9"	14' 8"
10"	25.4 lbs.			20' 0"	17' 10"
12"	31.8 lbs.				20' 0"

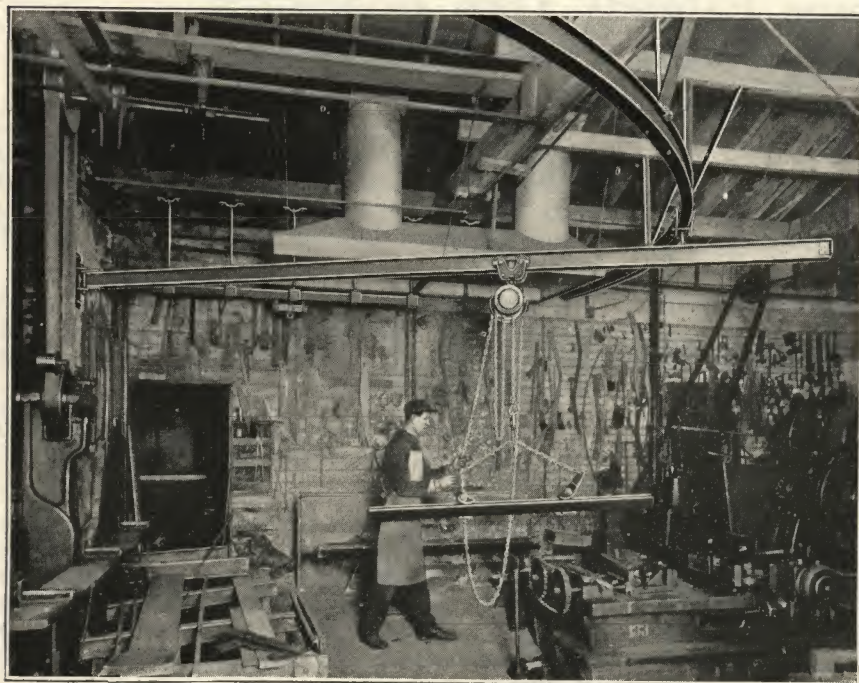
### R-W No. 969 Jib Crane

Length Overall	Approx. Height Overall	Approx. Weight Lbs.	Capacity Lbs.	List Price	Length Overall	Approx. Height Overall	Approx. Weight Lbs.	Capacity Lbs.	List Price
10'	5' 0"	240	1000	\$118.00	10'	5' 5"	375	3000	\$138.00
12'	5' 8"	265	1000	123.00	12'	6' 1"	450	3000	148.00
14'	6' 4"	330	1000	128.00	14'	6' 9"	495	3000	153.00
16'	7' 1"	360	1000	133.00	16'	7' 6"	585	3000	163.00
18'	7' 8"	435	1000	138.00	18'	8' 1"	705	3000	173.00
20'	8' 5"	470	1000	143.00	20'	8' 10"	765	3000	183.00
10'	5' 2"	300	2000	128.00	10'	5' 8"	445	4000	153.00
12'	5' 10"	365	2000	133.00	12'	6' 4"	530	4000	163.00
14'	6' 6"	405	2000	138.00	14'	7' 0"	580	4000	168.00
16'	7' 3"	490	2000	148.00	16'	7' 9"	695	4000	178.00
18'	7' 10"	535	2000	153.00	18'	8' 4"	865	4000	198.00
20'	8' 7"	640	2000	163.00	20'	9' 1"	940	4000	208.00

Discount.....



## R-W No. 968 Jib Crane with Outer End Supported by Curved Steelbeam Track



As can be seen from the illustrations the pintle or pivot plate can be attached either to a wall, a column, or from the ceiling.

The Steelbeam, from which the boom is made, can be furnished in any size or length. Its swinging end may have stops attached to each side to prevent trolley from running off the boom, or it may connect up with a straight run of Steelbeam track or with a switch (as shown in lower illustration).

The curved Steelbeam track varies in size and radius according to conditions, as do the trolley and hoist which operate upon it.



Track brackets and suspension bolts are furnished as will best suit the style of ceiling construction or superstructure used.

These jib cranes are used for so many different purposes, by so many different kinds of concerns, that space will not permit of listing the different sizes manufactured.

In fact every crane is made to order, the sizes and lengths of its various parts varying to suit the particular requirements of the individual installation.

### Maximum Load—4 tons

Note—One or more booms may operate from the same curved track if desired.

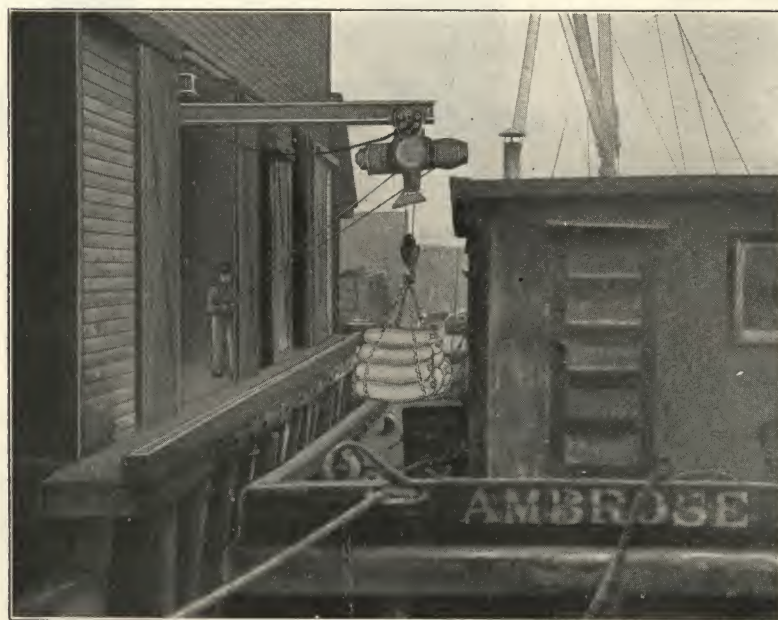
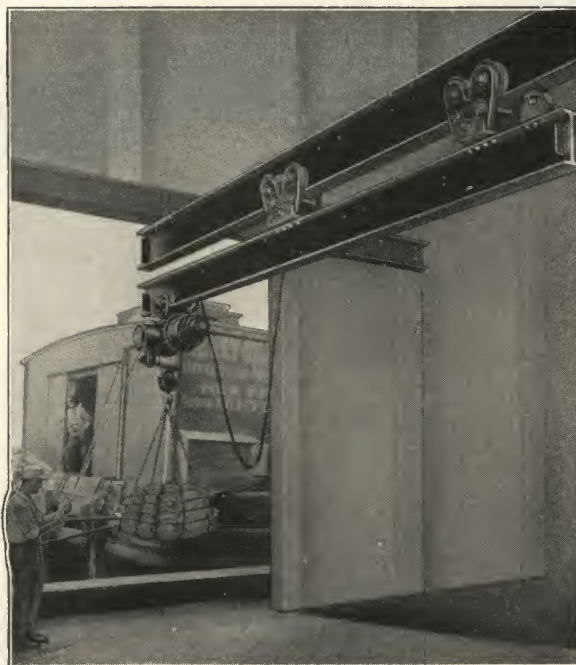
### When Requesting Prices State:

- 1—Kind of objects to be handled.
- 2—Maximum weight of objects to be handled.
- 3—Length of Steelbeam boom.
- 4—Size of Steelbeam boom.
- 5—Radius of curved track.
- 6—Style of superstructure curved track is to be supported from.
- 7—Distance from top of boom to support for curved track.
- 8—Distance from floor to bottom of boom.
- 9—Whether pintle or pivot plate is to be attached to wall or column (if so give thickness of wall or thickness and width of column) or to ceiling.
- 10—Send sketch of conditions if possible.
- 11—If trolley and hoist are desired, if so which ones together with their size.

### Prices on Application



## R-W No. 958 Movable Cantilever Crane For Power or Hand Operated Hoists



(1) This is a desirable crane to use when it is necessary to lift loads 4 to 8 feet beyond the building line and be able to move the entire equipment within the building.

(2) These cranes must necessarily be made special to meet local conditions which makes it impossible to quote list prices.

(3) Trolleys carrying the track will be furnished in the correct proportion to sustain maximum load on cantilever. Trolleys are ball bearing.

(4) Crane can be arranged with bridge locks to hold movable section firmly to stationary track, if required.

When writing about this crane;

Specify the cantilever in feet from first trolley.

Specify maximum load.

Specify type of hoist.

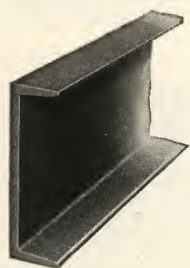
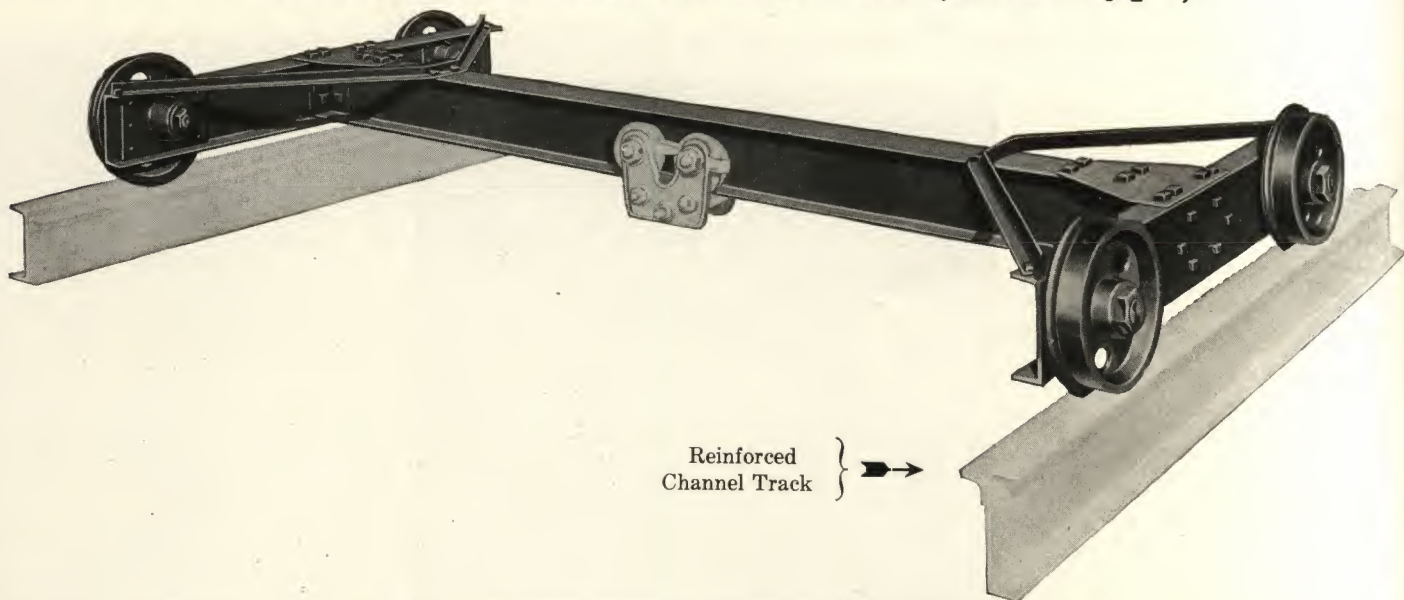
Specify size of runway track.

**Prices on Application**

*Only Movable Part Extends through Doorway*



## R-W No. 963 Steelbeam Crane (Push Type)



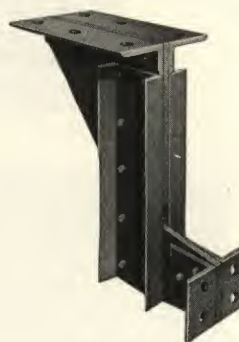
Channel Track

### Reinforced Channel Track

Shown supporting the cranes illustrated on this page.



Industrial Rail  
On I-Beam



Drop Bracket



Side Bracket

## R-W No. 964 Steelbeam Crane

### Hand Chain Drive Type

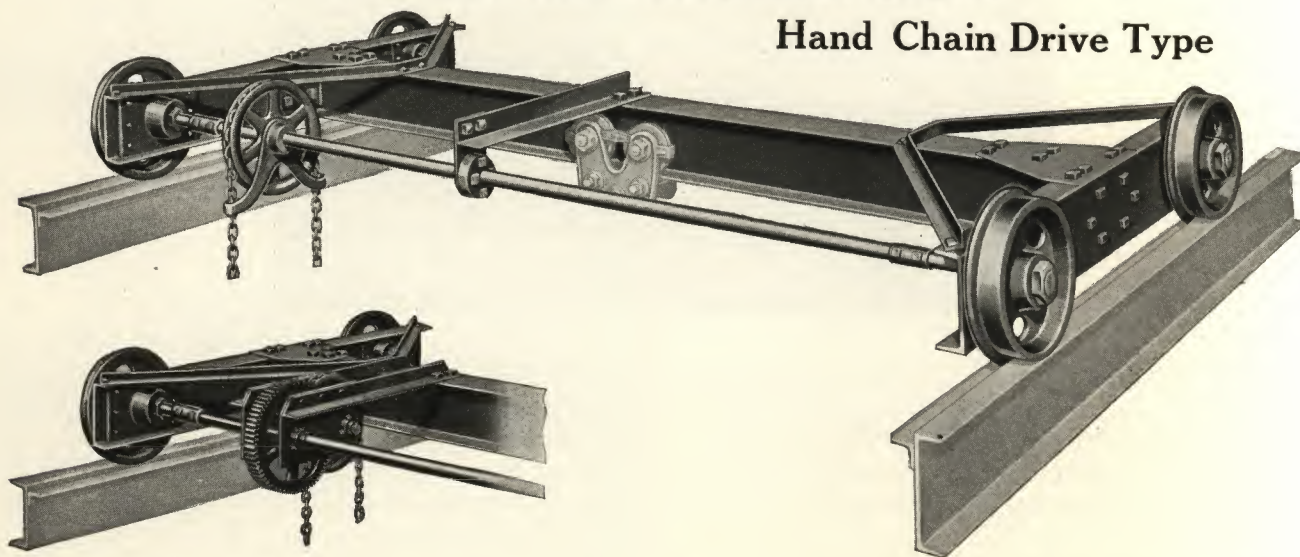


Fig. A-1970—Back Geared Chain Drive  
as furnished on 3,000 and 4,000 lb.  
capacity cranes

Fig. A-1971—Direct chain drive as shown in large  
illustration, is furnished on 1,000 and 2,000 lb. capacity  
cranes



## R-W No. 963 and No. 964 Steelbeam Cranes. (Continued)

The cranes illustrated on the opposite page are useful when it is desired to reach every part of a certain area and are designed to be used independently of Steelbeam or I-Beam track systems. When it is necessary to transfer loads from Over-Way track systems to a crane, then the type of crane as shown on pages 380 and 381 should be used.

The cross member of Nos. 963 and 964 cranes is a single Steelbeam, supported at each end by a truck frame constructed of steel channels.

The construction of the truck assures the load being equally distributed on all four wheels.

Wheels are ball-bearing, each being fitted with two sets of heavy duty ball-bearings, to insure easy operation. All R-W cranes are made

with single flange wheels with turned faces. Wheels regularly furnished are 12" in diameter, but special wheels, 8" or 16" in diameter can be furnished if so ordered. Cranes with 8" wheels require less headroom (12"), but do not operate as easily as cranes with larger wheels. Cranes with 16" diameter wheels operate more easily and are recommended when headroom is available. They require 16" headroom. Double flanged wheels can be furnished on special order.

The term "Span" in the tables below means the distance between the sides of the track against which the flange of the wheels run.

Track: Cranes are furnished to operate on the following types of track; Channel Track; Reinforced Channel Track; Industrial Rail on I-Beam. Crane Track and Track Brackets

are illustrated on opposite page and priced at bottom of this page. Special Brackets can be furnished to meet all conditions.

**No. 963 Crane** is the "push type" which is moved along the track by pushing or pulling on the load.

**No. 964 Crane** is of the "hand chain drive type" and is moved along the track by operating the hand chain drive, and is especially desirable where loads must be spotted accurately; where short moves are to be made or where the crane is quite high so that a direct pull on the load would not be efficiently transferred to the crane. No. 964 Cranes of 3,000 and 4,000 pounds capacity have back geared chain drives, as shown by illustration, Fig. A-1970, on opposite page.

### No. 963 Cranes

### List Prices of:

### No. 964 Cranes

1,000 lbs. Capacity					2,000 lbs. Capacity					(Geared) 1,000 lbs. Capacity					(Geared) 2,000 lbs. Capacity				
Span	Bridge	Headr'm	Wt., lbs.	Price	Bridge	Headr'm	Wt., lbs.	Price	Span	Bridge	Headr'm	Wt., lbs.	Price	Bridge	Headr'm	Wt., lbs.	Price		
10'	5'	14"	430	\$164.00	6'	14"	460	\$196.00	10'	5'	14"	480	\$212.00	6'	14"	510	\$247.00		
12'	5'	14"	460	166.00	6'	14"	495	198.00	12'	5'	14"	510	215.00	6'	14"	545	251.00		
14'	5'	14"	490	168.00	6'	14"	560	200.00	14'	5'	14"	540	219.00	6'	14"	610	255.00		
16'	5'	14"	550	170.00	7'	14"	615	208.00	16'	5'	14"	600	223.00	7'	14"	665	264.00		
18'	6'	14"	585	175.00	7'	14"	660	211.00	18'	6'	14"	635	230.00	7'	14"	710	269.00		
20'	6'	14"	620	177.00	8'	14"	760	220.00	20'	6'	14"	670	234.00	8'	14"	810	280.00		
22'	7'	14"	700	186.00	8'	14"	885	223.00	22'	7'	14"	750	244.00	8'	14"	935	286.00		
24'	7'	14"	740	189.00	9'	14"	940	236.00	24'	7'	14"	790	249.00	9'	14"	990	302.00		

3,000 lbs. Capacity					4,000 lbs. Capacity					(Geared) 3,000 lbs. Capacity					(Geared) 4,000 lbs. Capacity				
Span	Bridge	Headr'm	Wt., lbs.	Price	Bridge	Headr'm	Wt., lbs.	Price	Span	Bridge	Headr'm	Wt., lbs.	Price	Bridge	Headr'm	Wt., lbs.	Price		
10'	7'	14"	480	\$241.00	8'	14"	495	\$267.00	10'	7'	14"	530	\$327.00	8'	14"	545	\$356.00		
12'	7'	14"	520	244.00	8'	14"	560	275.00	12'	7'	14"	570	332.00	8'	14"	610	361.00		
14'	7'	14"	610	247.00	8'	14"	625	279.00	14'	7'	14"	660	336.00	8'	14"	675	368.00		
16'	8'	14"	665	255.00	9'	14"	740	288.00	16'	8'	14"	715	346.00	9'	14"	790	380.00		
18'	8'	14"	720	259.00	9'	14"	790	292.00	18'	8'	14"	770	352.00	9'	14"	840	386.00		
20'	9'	14"	850	271.00	10'	14"	965	309.00	20'	9'	14"	900	366.00	10'	14"	1015	400.00		
22'	9'	14"	890	275.00	10'	14"	1010	311.00	22'	9'	14"	940	385.00	10'	14"	1060	408.00		
24'	10'	14"	1045	288.00	12'	14"	1085	332.00	24'	10'	14"	1095	388.00	12'	14"	1135	430.00		

If 1,000 or 2,000 lb. capacity Cranes are ordered with 16" diameter wheels, add \$16.00 to list price; add \$24.00 to list prices of 3,000 or 4,000 lb. capacity Cranes.

If 1,000 or 2,000 lb. capacity Cranes are ordered with 8" diameter wheels deduct \$6.00 from list price, deduct \$8.00 from list price of 3,000 or 4,000 lb. capacity Cranes.

### List Price of Industrial Rail on I-Beam

Weight of Industrial Rail Per Yard	Minimum Size of I-Beams on which Industrial Rail can be used	List Price per Foot Including Splices and Clamp Bolts, Less I-Beams
12 lbs.	5 inches	\$ .70
16 lbs.	6 inches	.85
20 lbs.	7 inches	1.00
30 lbs.	8 inches	1.40

### List Price of Side and Drop Brackets

Capacity of Bracket	1000 lbs.	2000 lbs.	3000 lbs.	4000 lbs.
Side Bracket.....	\$ 7.00	\$ 8.00	\$ 9.00	\$10.00
Drop Bracket up to 12'.....	19.00	20.00	21.00	25.00
Drop Bracket add for each additional 6'.....	1.50	1.70	1.70	2.00

Note—Industrial Rails must be mounted on I-Beams or other supporting beams strong enough to carry the load. Capacities of I-Beams are given on page 358.

When determining the size of any crane track suitable for a given load, add one half the weight of the crane to the weight of the load to be carried on the crane and the weight of the hoist. The sum of these weights constitutes the load on the crane track and should be used instead of the capacity of the crane.

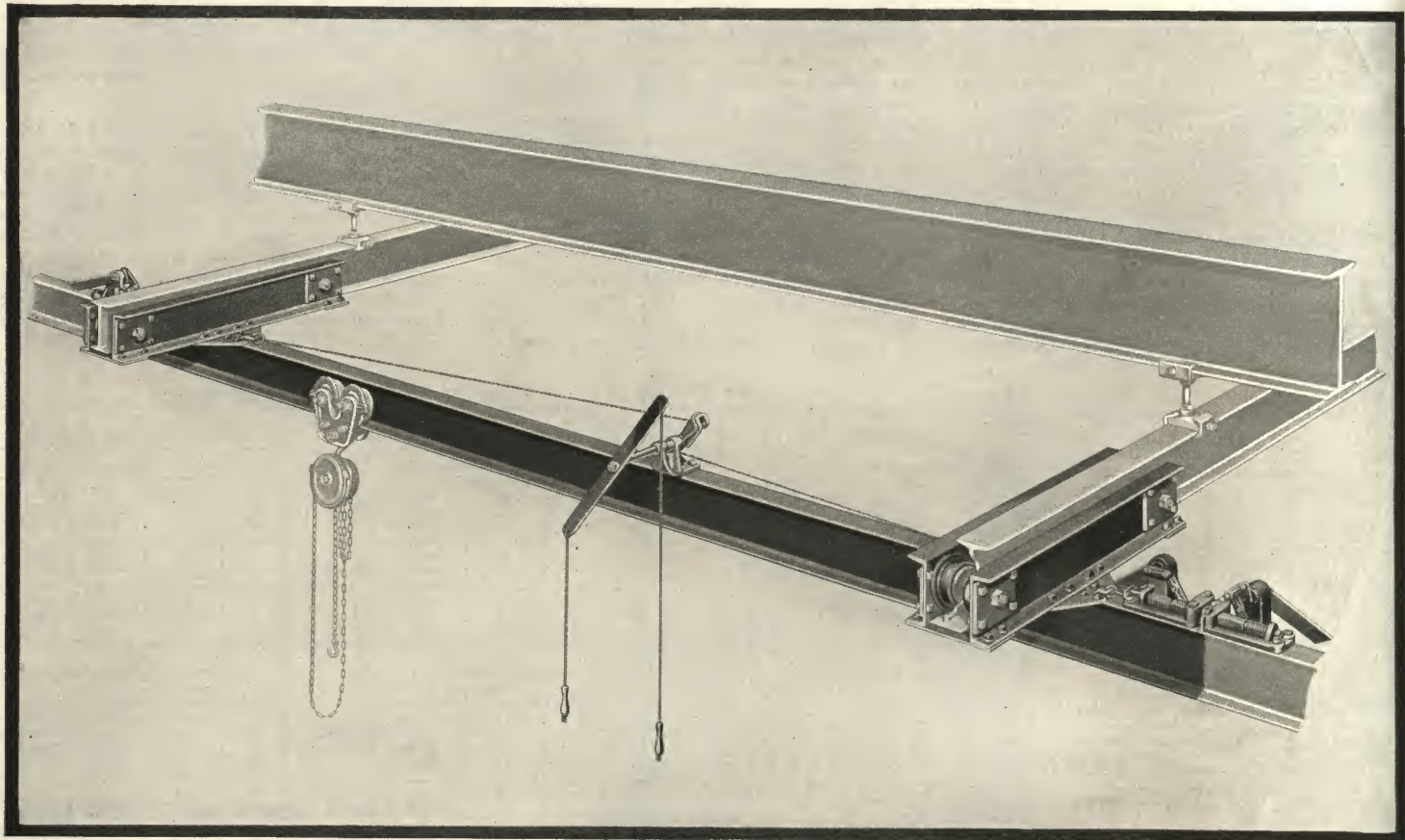
### Channel Tracks for R-W Crane Runways

Size of Channel	Wt. per Ft., Lbs.	SPANS IN FEET BETWEEN SUPPORTS OF RUNWAY CHANNEL TRACKS																		Price Per Foot	
		6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
5'	6.7	3770	2665	1955	1540	1075	845	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$ .70
6'	8.2	5685	3630	3025	2320	1805	1410	1075	855	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.80
7'	9.8	.....	5725	4570	3455	2550	2215	1720	1490	1080	820	.....	.....	.....	.....	.....	.....	.....	.....	.....	.90
8'	11.5	.....	.....	6290	4950	3940	3210	2570	2050	1665	1375	1060	820	.....	.....	.....	.....	.....	.....	.....	1.00
9'	13.4	.....	.....	.....	.....	5455	4440	3645	3000	2470	2025	1600	1315	990	722	.....	.....	.....	.....	.....	1.20
10'	15.3	.....	.....	.....	.....	.....	.....	4975	4000	3420	2830	2380	1995	1610	1235	975	730	.....	.....	.....	1.40
12'	20.7	.....	.....	.....	.....	.....	.....	.....	7400	6565	5530	4615	3865	3365	2680	2395	1990	1625	1270	1000	1.90
REINFORCED CHANNEL TRACK—(RUNWAY CHANNELS REINFORCED Laterally WITH ANGLE STIFFENERS)																					
5'	9.0	4675	3480	2705	2195	1790	1515	1270	1076	925	790	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$1.20
6'	11.4	.....	5275	4150	3375	2610	2375	1960	1755	1400	1315	1150	1005	883	725	.....	.....	.....	.....	.....	1.40
7'	13.0	.....	.....	5860	4775	3980	3370	2890	2500	2175	1905	1675	1475	1325	1095	1190	905	.....	.....	.....	1.50
8'	14.7	.....	.....	.....	.....	5445	4670	3965	3480	3035	2665	2350	2110	1870	1560	1395	1280	1150	1015	910	1.60
9'	17.5	.....	.....	.....	.....	.....	.....	5305	4800	4200	3745	3315	3085	2695	2265	2150	1950	1775	1585	1436	1.85
10'	21.2	.....	.....	.....	.....	.....	.....	.....	6285	5440	4845	4450	3870	3500	3060	2840	2555	2360	2105	1915	2.25
12'	26.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6645	5805	4970	4805	4385	4025	3700	3345	2.75

Discount.....



## R-W No. 961 Traveling Transfer Crane Without Geared Drive



Traveling Transfer Cranes are used when it is necessary to connect with monorail I-Beam or Steelbeam track and transfer the loads from the monorail to the crane.

The cross-member is a single I-Beam connected to structural steel end trucks. Each of the wheels are provided with durable heavy duty ball-bearings. Crane wheels run on the lower flange of I-Beam track, Bethlehem I-Beam or Lower Chord of a Truss.

The ends of the crane are fitted with latches to hold crane in line with the stationary tracks while transferring the loads.

Automatic stops attached to the ends of the crane beam and to the ends of the stationary tracks prevent the trolley from accidentally running off the track when crane is not lined up with stationary tracks.

Latches and stops on both ends of the crane are operated by one chain operated device near the center of the crane.

Latches and stops can be furnished for one or both ends of crane.

### Directions for Ordering

State: load to be carried; length of crane bridge; distance between centers of runway tracks; width and height of runway tracks; if stops and latches are wanted on both ends; distance from crane to floor so proper length of chain can be furnished; and send sketch showing building construction to which crane runway tracks can be attached.

**Note**—Stops shown (in above illustration) on end of stationary tracks are not included in price of crane but are sold extra.

### List Price

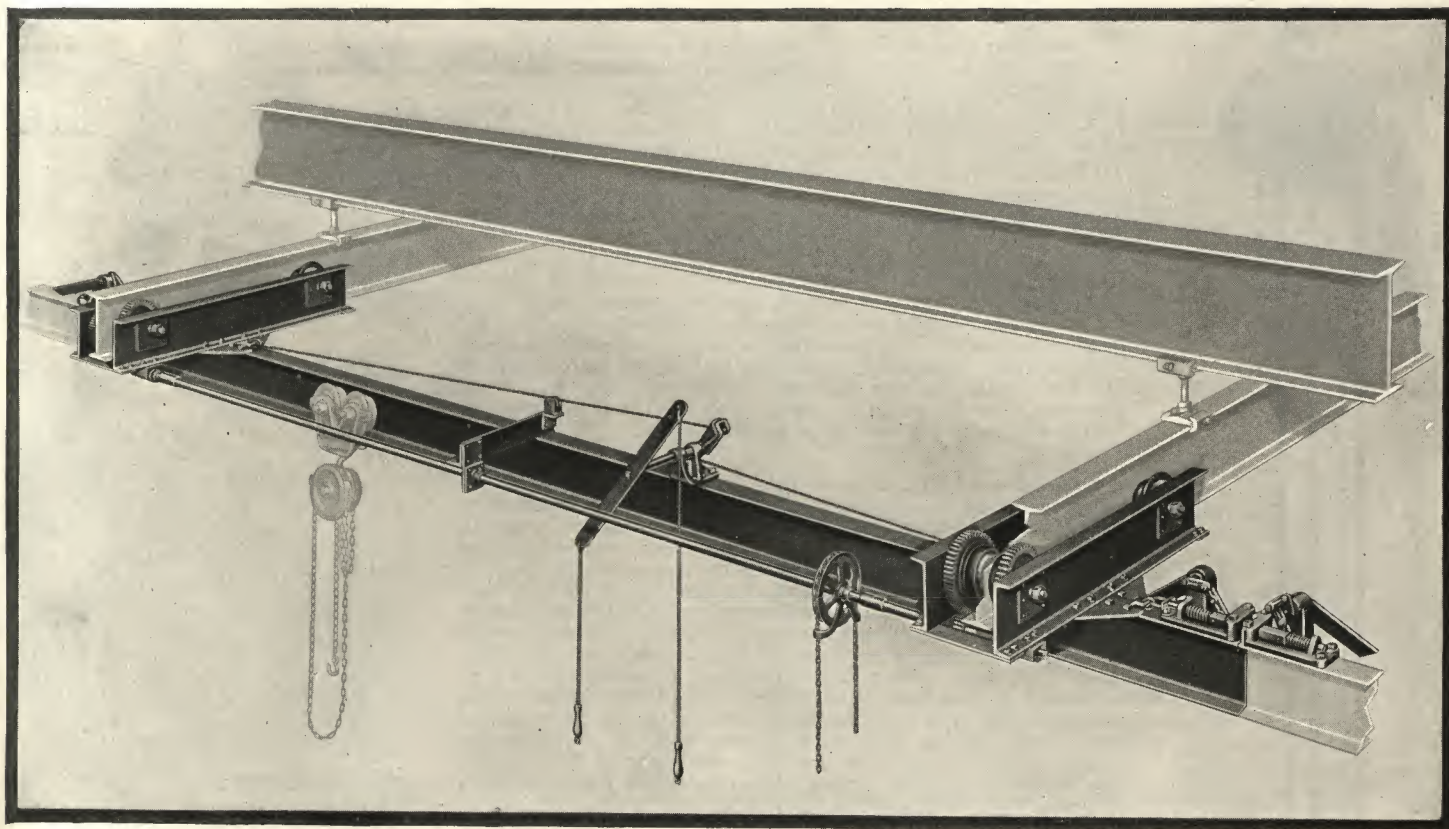
Span, Feet	1,000 lbs. Capacity			2,000 lbs. Capacity			3,000 lbs. Capacity			4,000 lbs. Capacity		
	Bridge	Wt., lbs.	Price	Bridge	Wt., lbs.	Price	Bridge	Wt., lbs.	Price	Bridge	Wt., lbs.	Price
10	5"	805	\$188.00	6"	935	\$215.00	7"	995	\$250.00	8"	1,020	\$290.00
12	5"	870	190.00	6"	1,010	217.00	7"	1,060	253.00	8"	1,110	294.00
14	5"	920	192.00	7"	1,120	224.00	8"	1,185	262.00	8"	1,200	297.00
16	6"	980	197.00	7"	1,220	227.00	8"	1,265	265.00	9"	1,295	309.00
18	6"	1,065	200.00	8"	1,310	237.00	9"	1,315	278.00	10"	1,385	324.00
20	7"	1,215	209.00	8"	1,360	240.00	9"	1,435	281.00	10"	1,440	328.00
22	7"	1,300	216.00	9"	1,480	274.00	10"	1,650	297.00	12"	1,680	348.00
24	8"	1,370	224.00	9"	1,570	278.00	10"	1,785	303.00	12"	1,750	355.00

**Note**—If latches and automatic stops are required on one end of crane add \$34.00 to price of crane, if on both ends add \$54.00 to price of crane. These prices do not include the stops and latches on stationary tracks, which are \$20.00 each. Minimum sizes of runway beams are: 6" for 1,000 lb. capacity crane; 7" for 2,000 lb. crane; 8" for 3,000 lb. crane; 9" for 4,000 lb. crane. Prices are based on bridge extending 18" beyond center of each runway track.

Discount.....



## R-W No. 962 Traveling Transfer Crane With Geared Drive



The crane illustrated on this page is similar to the one illustrated on the opposite page, except that this one is equipped with a geared operating device which makes it suitable for a larger span and more easily spotted in exact positions.

The cross-member is a single I-Beam connected to structural steel end tracks. Each of the wheels is provided with double heavy duty ball-bearings. Crane wheels run on the lower flange of I-Beam track, Bethlehem I-Beam or Lower Chord of a Truss. Two wheels on each of the two trucks have gears attached, which are operated by pinions on a shaft which assures a uniform travel of both sides of the crane. Handchain operators are furnished as regular equipment.

### Directions for Ordering

State: load to be carried; length of crane bridge; distance between centers of runway tracks; width and height of runway tracks; if stops and latches are wanted on one or both ends; distance from floor to crane so correct length of chain can be furnished.

Send sketch showing building construction to which crane tracks can be attached.

**Note**—Stops shown (in above illustration) on end of stationary runway tracks are not included in price of crane but are sold extra.

### List Price

Span, Feet	1,000 lbs. Capacity			2,000 lbs. Capacity			3,000 lbs. Capacity			4,000 lbs. Capacity		
	Bridge	Wt., lbs.	Price	Bridge	Wt., lbs.	Price	Bridge	Wt., lbs.	Price	Bridge	Wt., lbs.	Price
10	5"	875	\$308.00	6"	1,025	\$345.00	7"	1,075	\$392.00	8"	1,100	\$441.00
12	5"	940	312.00	6"	1,100	349.00	7"	1,160	396.00	8"	1,170	447.00
14	5"	1,000	315.00	7"	1,210	358.00	8"	1,280	405.00	8"	1,275	452.00
16	6"	1,070	321.00	7"	1,305	362.00	8"	1,365	410.00	9"	1,380	464.00
18	6"	1,150	325.00	8"	1,395	373.00	9"	1,410	424.00	10"	1,465	480.00
20	7"	1,300	336.00	8"	1,450	378.00	9"	1,540	430.00	10"	1,525	487.00
22	7"	1,375	340.00	9"	1,570	412.00	10"	1,760	447.00	12"	1,775	508.00
24	8"	1,450	353.00	9"	1,660	418.00	10"	1,895	453.00	12"	1,860	514.00

**Note**—If latches and automatic stops are required on one end of crane add \$34.00 to price of crane, if on both ends add \$54.00. These prices do not include the stops and latches on stationary tracks, which are \$20.00 each. Minimum size of runway beams is: 6" for 1,000 lb. crane; 7" for 2,000 lb. crane; 8" for 3,000 lb. crane; 9" for 4,000 lb. crane. Prices are based on bridge extending 18" beyond center of each runway track.

Discount.....

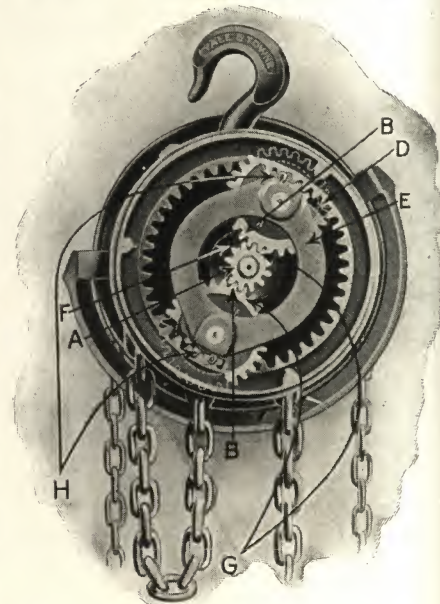
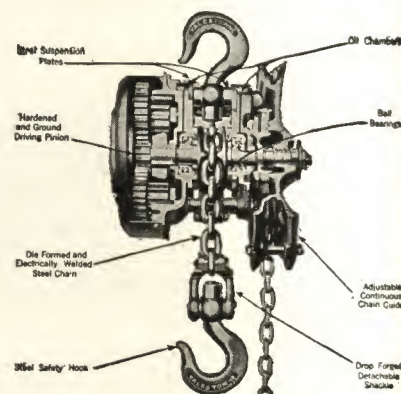


## Yale Spur-Gearred Ball-Bearing Chain Blocks



These Spur-Gearred Chain Blocks have a mechanical efficiency as high as can be obtained in any hoisting equipment. In operation they are safe, speedy, lift easily and quickly and are extremely long-lived. The load is held securely at all times and is lowered by reversing the pull on the hand chain. Steel suspension parts carry the load. The parts are few, and of generous proportions. All bearings are large and thoroughly lubricated. There are no delicate parts to get out of order. So constructed that there is a "line of steel" from the suspension hook to the load hook. These Blocks are rated on the long ton basis, 2,240 pounds to the ton. Each Block is tested to a load 50 percent greater (in long tons) than its rated capacity. While no Block is intended to lift overloads, this test insures strength to resist injury from strains and shock such as slippage of sling chains, etc. The steel load chains are die-formed and have electrically welded smoothly finished links. Chain is heat-treated to toughen it, lengthen its life and insure uniform strength throughout. No welding is necessary when renewing or adding extra lengths of chain as the load steel shackle and steel hook are detachable.

**Principles of Operation**—Yale Spur-Gearred Chain Blocks are operated on the familiar and fundamental mechanical principle of the "planetary" gear system—intermediate gears revolving planet-fashion around a central pinion and transferring the motion of that pinion to a cage rigidly connected to the load sheave. Operating by means of this enclosed system of planetary gears multiplies enormously the efforts of the operator, and enables him to lift with ease and rapidity loads that would tax the strength of many strong men. The larger of the illustrations to the right makes this clear. When the hand chain is pulled pinion "A" revolves. At two points on diametrically opposite sides of its perimeter the pinion transmits its energy to the intermediate gears "B-B", held in position by the gear-cage "E". The pinions of gears "B-B" mesh with the fixed internal gear "D", which acts as the fulcrum to compel revolution of the gear-cage "E". This gear-cage is keyed directly to the load sheave "F", which rotates and lifts the load chain. Thus, in Yale Spur-Gearred Blocks, all of the gears are pinioned together in a balanced train. The thrust of the gear-teeth is so balanced by the counteracting pressures of the intermediate gears that the load is equally distributed at every point and on both bearings. Notice in the illustration that the thrust of the tooth pressure at points "G" is neutralized by the counteracting pressure at points "H". Thus wear on the bearings is reduced to a minimum and, since the design has provided for the lowest possible stress in each part, the high initial efficiency of the Block is maintained through many years of heavy service, however, purchasers are cautioned not to use the blocks in excess of the rated capacity.



Planetary Gear System of the YALE Spur-Gearred Chain Block (Cover removed)

### Prices 1/4 to 10 Tons Capacity

Rated Capacity in Tons	List Price Complete Standard Lift	Standard Lift in Feet*	Minimum Distance Between Hooks	Extra Lift	Chain Pull to Lift Full Load	Chain Overhauled to Lift Load One Foot	Weigh Lbs. Net
				Price Per Foot			
1/4	\$ 70.00	8	13"	\$1.80	47 lbs.	12 1/2'	61
1/2†	70.00	8	13"	1.80	57 lbs.	21 "	61
1	90.00	8	16"	1.90	77 lbs.	31 "	94
1 1/2	120.00	8	18"	2.00	103 lbs.	35 "	136
2	140.00	9	21"	2.10	112 lbs.	42 "	204
3	180.00	10	32"	3.00	107 lbs.	70 "	212
4	220.00	10	37"	3.20	116 lbs.	84 "	301
5	280.00	12	45"	4.30	102 lbs.	126 "	413
6	330.00	12	46"	4.30	125 lbs.	126 "	411
8	400.00	12	49"	5.40	128 lbs.	168 "	500
10	480.00	12	54"	6.50	132 lbs.	210 "	612

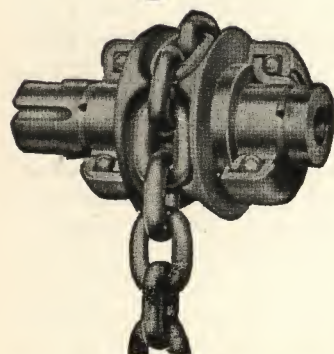
12 to 40 ton prices and particulars on request

\*"Standard Lift in feet" means the travel of the Lower Hook.

Hand Chain pull is based on a ton of 2,000 pounds.

†We make a 1/2-ton special "Quick Speed" Spur-Gearred Block which is the same as the 1-ton regular with the exception that the gear ratio has been changed to double the speed at half load—list price \$90.00.

Hand Chain pull 85 bs. Hand Chain overhaul 14 ft. to lift load one foot.



Showing application of Ball-Bearings on which the steel load sheave rotates and the manner in which the steel balls of large diameter reduce friction where friction is greatest. Ball-Bearings are completely enclosed and protected from dirt and grit by felt and steel washers.

Discount.....



## Yale Screw-Geared Chain Blocks

Where the higher speed of the Yale Spur-Geared Block is not required, the Yale Screw-Geared is recommended. It is adapted for portable use, being light, powerful and durable. It holds the load and will not lower until the hand chain is pulled.

The Yale Screw-Geared Block has about one-half the efficiency of the Yale Spur-Geared. It operates with a light chain pull, but the relatively larger over-haul of hand chain to lift the load makes it proportionally slow in operation. It is adapted also to horizontal work when pulling heavy loads on rollers or skids.

The load is carried by two Yale steel chains. Each of these chains has ample strength to carry a load up to the rated capacity of the block.

The Yale Screw-Geared Block is operated on the worm wheel and screw principle. The hand wheel is keyed to a hardened steel worm shaft which in turn meshes with a bronze worm wheel. Two steel load sheaves carry the load chain. The entire rotating mechanism is enclosed between two machined castings, all parts being thoroughly bathed in graphite and oil.

The drop forged detachable shackles and oval pins, make it possible to readily detach the lower cross-head and hook and lengthen or shorten the load chain without cutting or welding the last link. This is a distinct advantage when a change in the length of the standard load is required.

The Yale Screw-Geared Block holds the load securely in any position. Raising or lowering the load can only be accomplished by exerting a pull on the hand chain.

### Prices and Information on Yale Screw-Geared Chain Blocks

Rated Capacity in Tons	List Price Complete	Reg. Lift in Feet	Minimum Distance Between Hooks in Inches	Extra Lift Price per Foot†	Net Weight in Lbs.	Chain Pull to Lift Full Load	Chain Over-hauled to Lift Load One Foot
1/2	\$ 50.00	8*	14	\$2.50	46	68 lbs.	40 feet
1	60.00	8	16	2.60	59	87 lbs.	59 feet
1 1/2	80.00	8	19	2.70	81	94 lbs.	80 feet
2	100.00	9	21	2.80	104	115 lbs.	93 feet
3	150.00	10	25	3.00	187	132 lbs.	126 feet
4	190.00	10	26	3.80	221	142 lbs.	155 feet

\*Figures denote the travel of bottom hook with regular length of chains. No deduction is made for blocks with less than the regular length of chains.

†Extra lift per foot includes sufficient hand and load chain to increase the travel of the lower hook 1 foot.

### Yale Differential Chain Blocks

The Yale Differential Block is for occasional service where comparatively light loads must be handled infrequently. The overhaul of hand chain compares with the Yale Spur-Geared Block, but the hand chain pull is greater by two and a half times. The block, however, is light, easily handled. It holds the load and will not lower until the hand chain is pulled.

It has the fewest parts and on account of its reliability and simplicity, is especially adapted for use in garages, and for all ordinary hoisting purposes where the higher power and durability of the Yale Spur-Geared and Screw-Geared Blocks are not required.

The regular Yale drop-forged steel hooks are used on all Yale Differential Blocks.

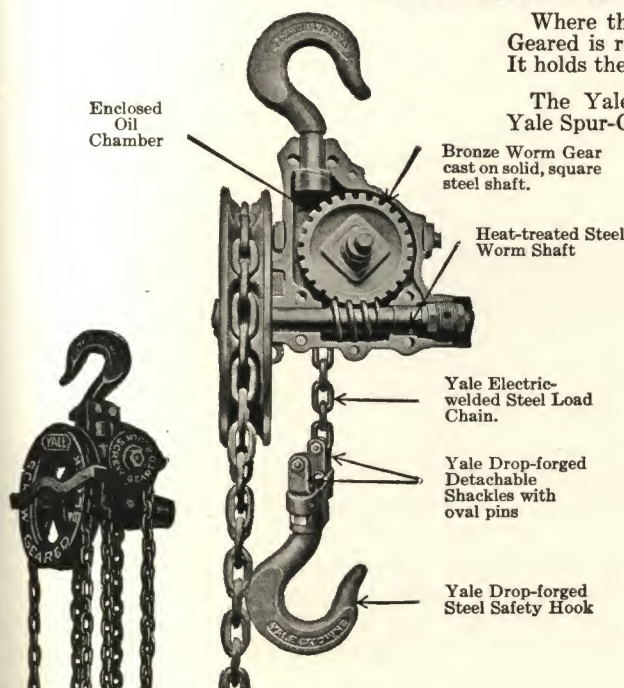
Although the cost of the Yale Differential Block is low, it possesses the excess capacity that is the distinctive feature of all Yale hoisting equipment.

### Yale Differential Chain Blocks 1/4 to 2 Tons

Rated Capacity in Tons	List Price Complete	Reg. Lift in Feet	Minimum Distance Between Hooks	Extra Lift Price per Foot	Weight in Lbs. Net	Chain Pull	
						Lbs.	Feet
1/4	\$36.00	6	17"	\$4.80	23	72	18
1/2	42.00	7	21"	4.80	30	110	24
1	56.00	8	26"	5.00	50	190	30
1 1/2	72.00	8 1/2	32"	5.40	81	225	36
2	90.00	9	39"	5.60	121	300	42

Note—Special Catalog of Yale Hoists furnished on request.

Discount.....



Screw-Geared Type

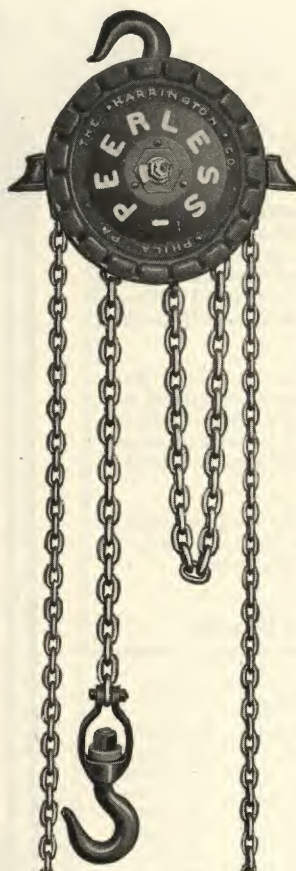


Differential Type



## Harrington Peerless Hoists

All Steel, Ball-Bearing, Spur Geared



Regular Hoist

COMPOSED entirely of steel working and load carrying parts. The two main frames are cut from tough steel plate into which are welded steel cups for supporting and enclosing high duty ball bearings that support the direct load. The load chain is made from the best grade of strong and ductile steel, the joints being electrically butt-welded on the side with a smooth finish. The sheave wheel for the hand chain is of pressed steel.

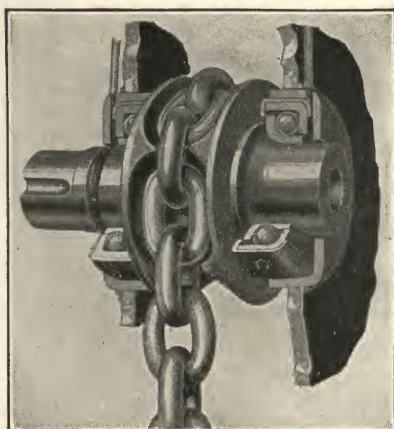
The bottom hook and swivel, both of drop-forged steel, are equipped with a ball thrust permitting easy rotation of the heaviest load and having a bolted connection allowing easy application on any length load chain.

The gearing is a simple train of spurs of alloy and high carbon steels with accurately generated cut teeth and all heat treated. A double set of intermediate gears and pinions in horizontal arrangement balances the tooth pressures and relieves the central bearings of all strains.

Quick speed gearing for increasing the rate of hoisting is optional equipment on  $\frac{1}{4}$ ,  $\frac{1}{2}$ , and 1-ton sizes.

The sustaining mechanism with its Harrington silent rotary lock is a friction brake which revolves as one piece with the pinion shaft when lifting; but when hoisting or lowering ceases, it is automatically and positively locked to hold the load until again moved by the operator. The parts of this friction brake need no adjustment and only a small pull is required to lower the load.

### List Prices of Regular Peeless Hoists



Showing application of Ball-Bearings on which the steel load sheave rotates and the manner in which the steel balls of large diameter reduce friction where friction is greatest. Ball-Bearings are completely enclosed and protected from dirt and grit by felt and steel washers.

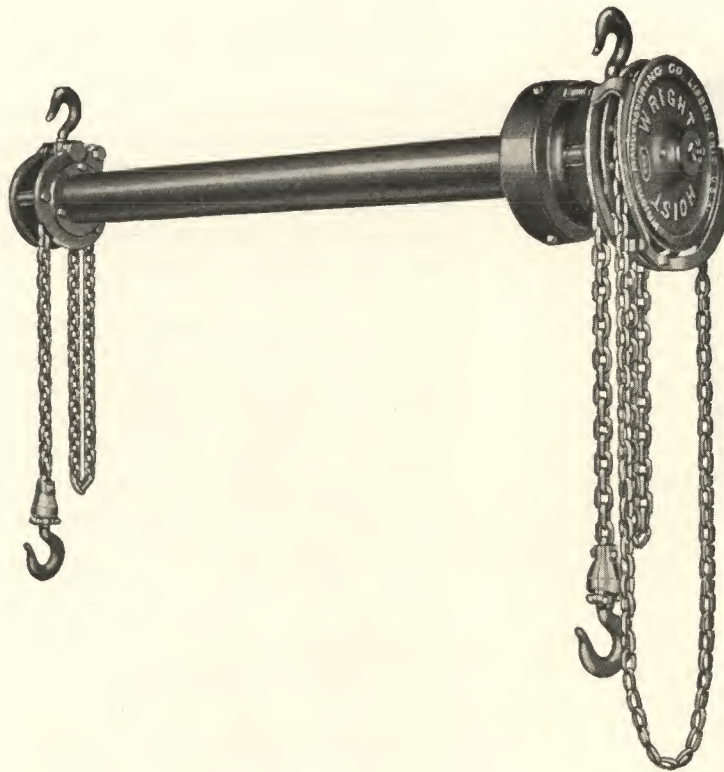
Capacity in Tons	Regu- lar Lift Feet	Least Distance between Hooks, In.	Chain Han- dled to Lift Load 1 Foot Ft.	Pull on Hand Chain to Lift Full Load, Lbs.	Weight (reg. lift) in pounds		Price of	
					Net	Gross	Hoist Reg. Lift	Extra Lift per ft.
$\frac{1}{4}$	8	$13\frac{3}{4}"$	14.0	45	50	66	\$60.00	\$1.40
$\frac{1}{2}$	8	$13\frac{3}{4}"$	20.3	61	51	67	70.00	1.50
1	8	$17\frac{3}{4}"$	31.5	78	80	103	90.00	1.70
$1\frac{1}{2}$	8	$19\frac{3}{4}"$	34.5	108	110	143	120.00	1.80
2	9	$22\frac{1}{4}"$	40.5	123	150	187	140.00	1.90
3	10	$25\frac{3}{4}"$	59.0	127	220	274	180.00	2.30
4	10	$32\frac{3}{4}"$	81.0	128	227	280	220.00	3.00
5	12	$37\frac{1}{2}"$	118.0	112	325	410	280.00	3.80
6	12	$38\frac{1}{2}"$	118.0	134	340	425	330.00	3.80
8	12	46"	177.0	125	436	563	400.00	5.30
10	12	50"	154.5	181	510	637	480.00	6.20

Note—15 and 20 ton prices and particulars on request.

Discount.....



## Wright Twin Hook High Speed Hoist



In the Wright Twin Hook Hoist, regular High Speed hoisting mechanisms are rigidly connected, so that one hand chain operates the two load chains simultaneously thus allowing one man to lift the load evenly.

The Twin Hook Hoist is especially suited for lifting and holding truck bodies for loading and unloading, while the chassis is being utilized for other work; and for handling ash buckets, drying and storage racks, lumber and other long pieces.

### List Prices and Information

Capacity in Tons	Center Distance between Hooks						Reg. Lift in Feet	Extra Lift Price per ft.	Hand Chain Overhaul per ft. Lift	Hand Chain Pull in Pounds	Net Weight 4' Centers	Minimum Distance Between Hooks In Inches
	3 feet	4 feet	5 feet	6 feet	7 feet	8 feet						
$\frac{1}{4}$	\$165.00	\$165.00	\$168.00	\$171.00	\$174.00	\$177.00	8	\$ 2.60	10'	61	129	12
$\frac{1}{2}$	165.00	165.00	168.00	171.00	174.00	177.00	8	2.60	20	61	129	12
1	220.00	220.00	223.00	226.00	229.00	232.00	8	2.80	31	83	208	15 $\frac{1}{2}$
1 $\frac{1}{2}$	286.00	286.00	289.00	292.00	295.00	298.00	8	3.00	35	111	340	17
2	330.00	330.00	333.00	336.00	339.00	342.00	9	3.20	42	121	530	21
3†	440.00	450.00	460.00	470.00	480.00	490.00	10	5.00	70	115	580	29 $\frac{3}{4}$
4	500.00	510.00	520.00	530.00	540.00	550.00	10	5.40	84	127	740	34
5	600.00	610.00	620.00	630.00	640.00	650.00	12	7.60	126	112	925	38 $\frac{1}{2}$
6	700.00	710.00	720.00	730.00	740.00	750.00	12	7.60	126	132	925	38 $\frac{1}{2}$
8	820.00	830.00	840.00	850.00	860.00	870.00	12	9.80	168	145	1035	44 $\frac{1}{2}$
10	900.00	910.00	920.00	930.00	940.00	950.00	12	12.00	210	145	1080	49 $\frac{1}{2}$

†3 tons and larger have bottom sheaves.

Discount.....

Each "Wright" HOIST is subjected to a test of 50% above its rated capacity



## Ford Tribloc Hoists



The Ford Tribloc  
½ to 2 Tons

The following is a brief description of the essential and important features of the Tribloc.

The planetary type of spur gearing was adopted for the Tribloc, as time had demonstrated it to be the most efficient form. We, however, substituted steel gears and steel working parts for the cast iron ones used by other makers, thereby increasing the life and strength of the hoist.

The spur gear operating mechanism, with steel gears, is more highly efficient than any other type, and it maintains this high efficiency throughout the life of the hoist. Eighty per cent of the power applied to the hand chain of a Tribloc is converted into lifting energy. An eighty-two pound pull of one man on the hand chain will lift a ton.

The chain guide is an endless steel loop having fixed guiding strips adjacent to the flanges of the wheel, extending from one guide to the other and conforming to the circumference of the wheel.

The Chains and Hooks used on Ford Triblocs are made from carefully selected steel stock and are subject to the most rigid inspection and test before they are attached to a hoist. The steel used has high tensile strength combined with great ductility.

### List Price—Tribloc Chain Hoists

Capacity in Tons	Price Complete	Regular Hoist in Feet*	Reach in Feet and Inches	Extra Hoist Price per Foot	Minimum Distance Between Hooks in Inches	Net Weight in Lbs.	Chain Pull in Lbs. to Lift Full Load	Feet of Chain Handled to Lift Load One Foot
½	\$ 70.00	8	9' 3"	\$1.80	13	53	62	21
1	90.00	8	9' 5"	1.90	16	80	82	31
1½	120.00	8	9' 7½"	2.00	18	124	110	35
2	140.00	9	11'	2.10	21	188	120	42
3	180.00	10	12' 8"	3.00	32	200	114	69
4	220.00	10	13' 1"	3.20	37	290	124	84
5	280.00	12	15' 9"	4.30	45	380	110	126
6	330.00	12	15' 10"	4.30	46	390	130	126
8	400.00	12	16' 3"	5.40	49	470	135	168
10	480.00	12	16' 9"	6.50	54	570	140	210

\*Figures denote height in feet which blocks with regular lengths of chain will hoist from level on which operator stands. Extra lengths of chain should be ordered when it is desired to hoist higher. No deduction is made for blocks with less than the regular length of chain.

Prices and full particulars on hoists up to 40 tons capacity on request.

Discount.....



## Ford Screw Hoists

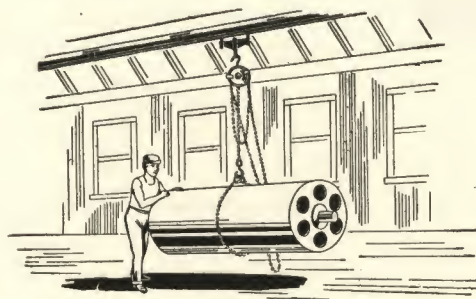
For work where the highest speed and efficiency are not required, we can furnish the Ford Duplex Type Worm Gear Hoist. While this type of hoist is not as efficient as the Tribloc, it is frequently preferred for portable use, as it is lighter in weight and at the same time powerful and durable.

List Price of Screw Hoists

Capacity in Tons	Price Complete	*Regular Hoist in Feet	Extra Hoist, Price per Foot	Minimum Distance Between Hooks in Inches	Net Weight in Lbs.
1/2	\$ 50.00	8	\$2.50	13	43
1	60.00	8	2.60	16	57
1 1/2	80.00	8	2.70	19	76
2	100.00	9	2.80	21	104
3	150.00	10	3.00	25	180
4	190.00	10	3.80	29	215
5	280.00	12	4.00	31	300
6	360.00	12	5.60	33	320
8	420.00	12	6.00	36	380
10	550.00	12	6.40	45	555

\*Figures denote height in feet which blocks with regular lengths of chain will hoist from level on which operator stands. Extra lengths of chain should be ordered when it is desired to hoist higher. No deduction is made for blocks with less than the regular length of chain.

Discount.....



## Ford Differential Hoists

This is the simplest of all chain hoists, and where a hoist is required but occasionally and high efficiency and speed are not essential, it serves the purpose admirably. The Ford Differential Hoist is made with exceeding care and of the best material obtainable. It has drop-forged steel hooks and the best grade of chain.

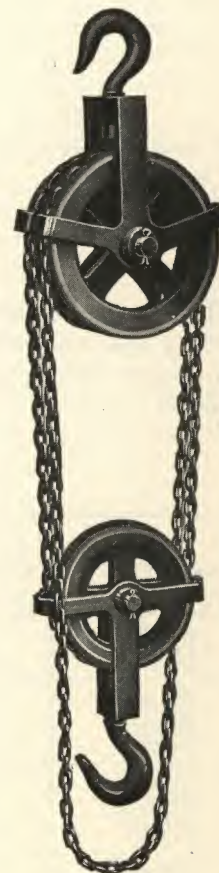
List Price of Differential Chain Hoists

Capacity in Tons	Price Complete	Regular Hoist in Feet	*Extra Hoist Price per Foot	Minimum Distance Between Hooks in Inches	Net Weight in Lbs.
1/4	\$ 36.00	6	\$5.60	17	22
1/2	42.00	7	5.60	21	30
1	56.00	8	6.00	26	51
1 1/2	72.00	8 1/2	6.40	32	81
2	90.00	9	6.80	39	122
3	120.00	9 1/2	8.00	44	180

Discount.....

Note—Special Catalog of Ford Hoists furnished on request.

\*Each foot of extra hoist includes four feet of chain.





## R-W No. 819 Tipping Buckets



This Bucket is used with overhead trolley track for carrying coal and ashes through narrow passages, to and from boiler rooms, gas retort houses, and store rooms generally.

The body of bucket is made low for easy filling. It is neatly and strongly designed, with double bottom. Below we give a list of the regular sizes.

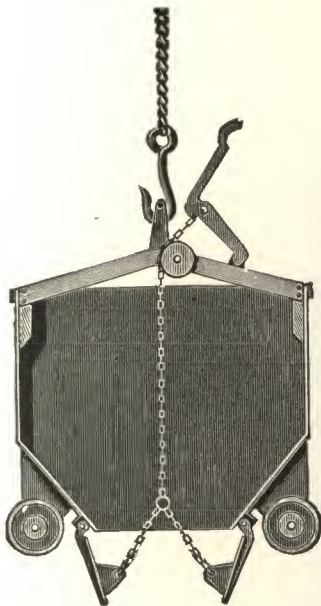
Table of Sizes, Prices, Etc.

Catalog No.	Coal Capacity in Lbs.	Capacity in Cubic Ft.	Length of Bucket in In.	Width Over All in Inches	Depth in Inches	Approx. Wt. of Bucket in Lbs.	List Price
819-123	300	6	33	26	19	170	\$ 90.00
819-124	400	8	36	27	22	200	100.00
819-125	500	10	41	30	24	250	105.00
819-126	600	12	42	33	25	320	120.00
819-127	700	14	48	33	27	365	130.00
819-128	900	18	48	37	29	475	160.00
819-129	1050	21	48	43	30	500	165.00
819-130	1350	27	46	46	31	630	200.00
819-131	1350	27	53	43	29	630	210.00
819-132	1800	36	58	54	33	775	230.00
819-133	2100	42	64	55	32	860	250.00

Discount.....



## R-W No. 820 Bottom-Dumping Buckets



In situations using Steelbeam Track for supporting coal and ashes where the overhead room is not sufficient to operate Tipping Buckets, we recommend our Bottom Dumping Buckets.

The Bucket is rectangular in form with inclined bottom plates, fitted with hopper doors actuated by a hoisting and lowering chain with suitable lever.

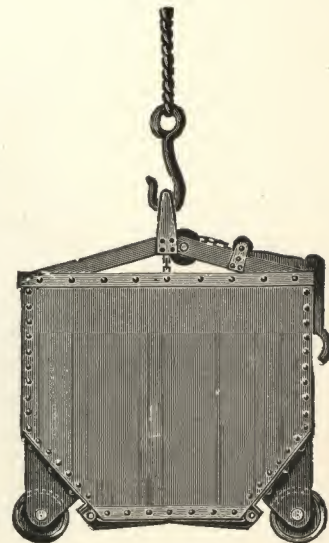


Table of Sizes, Prices, Etc.

Catalog No.	Coal Capacity in Lbs.	Capacity in Cubic Feet	List Price, Each
820-175	700	14	\$340.00
820-176	1120	22	460.00
820-177	1500	30	550.00
820-178	2240	44	630.00

Discount.....

## List Price of Machine Bolts Square Heads and Square Nuts Price per Hundred

Length, Inches	½ In. Diameter	⅝ In. Diameter	¾ In. Diameter	⅞ In. Diameter	1 In. Diameter	1 ⅛ In. Diameter
2	\$ 3.86	\$ 5.58	\$ 8.25	\$11.20	\$16.00	\$23.70
3	4.38	6.34	9.35	12.60	17.80	26.10
4	4.90	7.10	10.45	14.00	19.60	28.50
5	5.42	7.86	11.55	15.40	21.40	30.90
6	5.94	8.62	12.65	16.80	23.20	33.30
7	6.46	9.38	13.75	18.20	25.00	35.70
8	6.98	10.14	14.85	19.60	26.80	38.10
9	7.50	10.90	15.95	21.00	28.60	40.50
10	8.02	11.66	17.05	22.40	30.40	42.90
11	8.54	12.42	18.15	23.80	32.20	45.30
12	9.06	13.18	19.25	25.20	34.00	47.70
13	9.58	13.94	20.35	26.60	35.80	50.10
14	10.10	14.70	21.45	28.00	37.60	52.50
15	10.62	15.46	22.55	29.40	39.40	54.90
16	11.14	16.22	23.65	30.80	41.20	57.30
17	11.66	16.98	24.75	32.20	43.00	59.70
18	12.18	17.74	25.85	33.60	44.80	62.10

Discount.....



R-W No. 113



Ball-Bearing

## Store Ladders



As shown in the illustration, the weight is carried entirely by the upper fixtures, the lower rollers acting as a guide against the edge of ledge.

Ladders are made of oak or pine, selected and kiln dried. Steps are let into the sides and held by screws passing through the sides of ladder. A steel rod below the top and bottom steps and each fourth intermediate step passes through the ladder sides, tying them rigidly into place and prevents spreading.

Ladder sides are  $3\frac{1}{2}$  inches wide and steps 4 inches wide on ladders up to 14 feet; over 14 feet, sides are 4 inches wide and steps 5 inches wide. Steps are 12 inches long between ladder sides.

Oak ladders will be finished in dark golden oak unless otherwise specified. Pine ladders are filled and varnished. When special finishes are required ladders will be shipped unfinished so that customer may finish same to suit self on job.

Track is attached to the uprights of shelving, edge of shelves or cornice as shown above. Not recommended for use with uprights when more than 36 inches apart. Fixtures, both top and bottom, described on opposite page.

Top fixture will require  $5\frac{1}{2}$  inches of headroom above bottom of track.

Straight ladders will be substituted for bent ladders when ledge is narrow enough to make the straight ladder approximately parallel with the lower part of the shelving.

See next page for prices



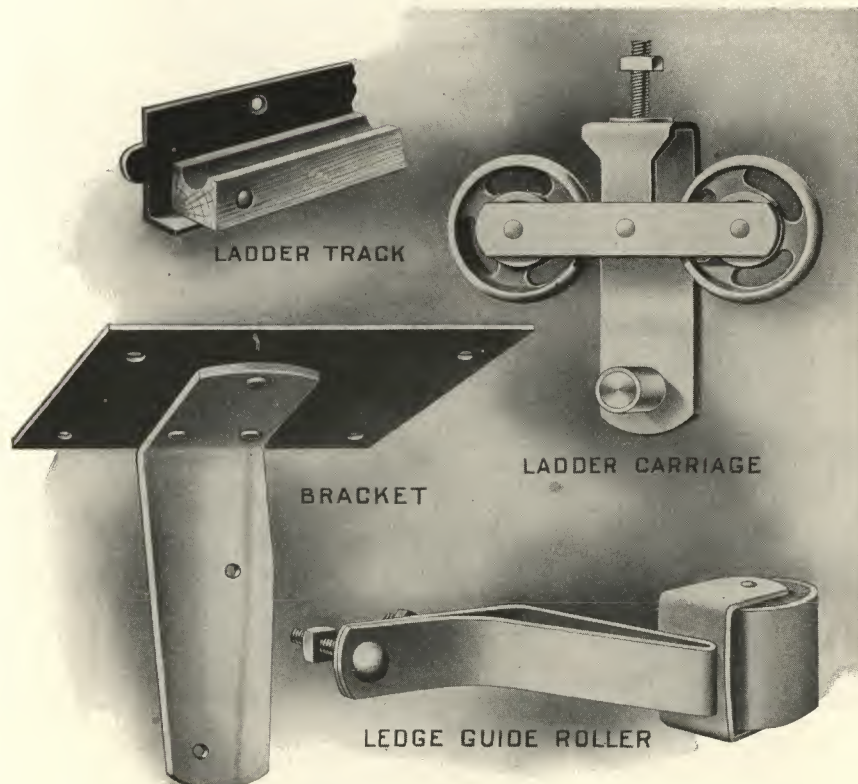
R-W No. 113



Ball-Bearing

## Store Ladders

(Continued)



Top Fixtures—Wheels, grey iron, lathe turned,  $2\frac{1}{2}$  inches diameter. Bearings, steel balls. Finish, dead black except on special order.

Bottom Fixtures—Roller, wood and rubber tired. Frame, steel, properly braced. Finish, dead black except on special order.

Track—Steel angle with grooved hard maple runway, securely attached to same. Finish, natural.

### List Price

The following list price includes standard length ladders up to 14 feet complete with top and bottom fixtures, Track is not included.

No. 113 Oak Bent Ladder ( $3\frac{1}{2}$ lbs. per foot). Complete.....	\$30.00
No. 113 Hard Pine Bent Ladder (3 lbs. per foot). Complete.....	27.00
No. 113 Top Fixtures only (4 lbs.). Per set.....	6.00
No. 113 Bottom Fixtures only (3 lbs.). Per set.....	4.00
No. 113 Ladder Track ( $1\frac{3}{4}$ lbs.). Per foot.....	.40

Discount.....

**Note**—For ladders over 14 feet long add \$2.00 net for each additional foot.

### Directions for Ordering

See page 411. Give all dimensions asked for and send sketch.



R-W Nos.  
114 and 114-B



Roller and  
Ball-Bearing

## Store Ladders



R-W No. 114

R-W No. 114-B

As shown in the illustration, the bottom fixtures on the No. 114 and the ledge rollers on the No. 114-B carry the entire weight; the upper fixtures operating on the pole track act only as a guide.

Ladders are made of oak or pine, selected and kiln dried. Steps are let into the sides and held by screws passing through the sides of ladder. A steel rod below the top and bottom steps and each fourth intermediate step passes through the ladder sides, tying them rigidly into place and prevents spreading.

Ladder sides are  $3\frac{1}{2}$  inches wide and steps 4 inches wide on ladders up to 14 feet; over 14 feet, sides are 4 inches wide and steps 5 inches wide. Steps are 14 inches long between ladder sides.

Oak ladders will be finished in dark golden oak unless otherwise specified. Pine ladders are filled and varnished. When special finishes are required ladders will be shipped

unfinished so that customer may finish same to suit self on job.

Straight ladders can be set close to shelving when not in use, as the upper fixture has a self-adjusting vertical slide, which also conforms to unevenness in floor. Straight ladders furnished with ball-bearing, rubber, fibre-tired, or all metal wheels for bottom of ladder. Bent ladders have roller-bearing wheels running on half-round ledge track. Straight ladders will be substituted for bent ladders whenever ledge is narrow enough to make the straight ladder approximately parallel with the lower part of the shelving.

Track is attached to the uprights of shelving, edge of shelves or to cornice as shown above. Brackets are not attached, so as to allow spacing according to location of uprights, etc. Fixtures, both top and bottom described on opposite page. Top fixtures will require 6 inches of headroom above bottom of track.

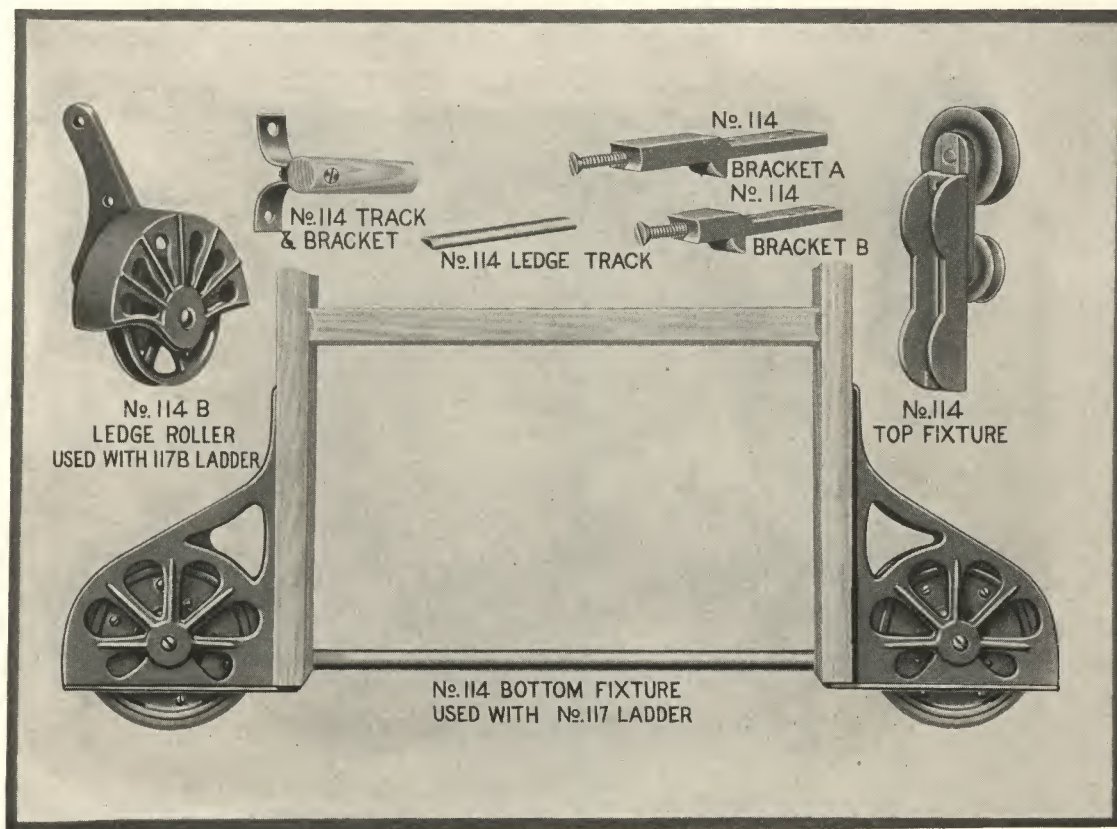


R-W Nos.  
114 and 114-B



Roller and  
Ball-Bearing

## Store Ladders (Continued)



Top Fixtures—Wheels, both track and guide, are grey iron, lathe turned. Adjustment vertical, self-adjusting. Finish, dead black except on special order.

Bottom Fixtures—For straight ladders.

Wheels, steel. Tired wheels made in two sections, permitting tires to be removed easily; all metal wheels made in one piece. Bearings, steel balls. Frames, grey iron. Tired wheels furnished with rubber or fibre tires. Finish, dead black except on special order.

For Bent Ladders:

### List Price

The following list price includes standard length ladders up to 14 feet, complete with top and bottom fixtures. Track is not included.

	Rubber Tired	Fibre Tired	All Metal	
No. 114 Oak Straight Ladder (3½ lbs. per foot). Complete.....	\$27.00	\$30.00	\$27.00	
No. 114 Hard Pine Straight Ladder (3 lbs. per foot). Complete.....	24.00	28.00	24.00	
No. 114 Top Fixtures only (5½ lbs.). Per set.....				\$6.00
No. 114 Bottom Fixtures only (13 lbs.). Per set.....	10.00	14.00	10.00	
No. 114 Ladder Track with regular brackets (¾ lbs.). Per foot.....				.40
No. 114-B Oak Bent Ladder (3½ lbs. per foot). Complete.....				29.00
No. 114-B Hard Pine Bent Ladder (3 lbs. per foot). Complete.....				27.00
No. 114-B Top Fixtures only (5½ lbs.). Per set.....				6.00
No. 114-B Bottom Fixtures only (6½ lbs.). Per set.....				6.00

Discount.....

Note—For ladders over 14 feet long add \$2.00 net for each additional foot.

Note—Ledge Track for No. 114-B is included with price of ladder complete.

### Directions for Ordering

See page 411. Give all dimensions asked for and send sketch.

**R-W Ladder Fixtures are Noted for their Strength!**

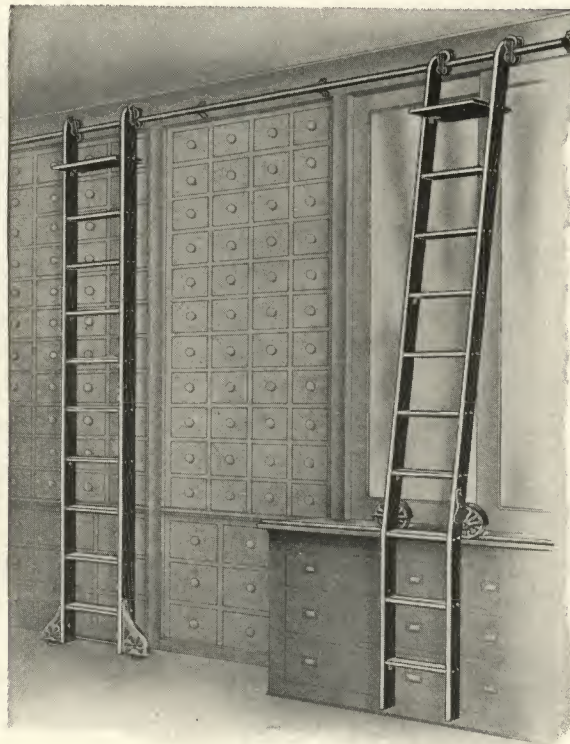


R-W Nos.  
117 and 117-B



Roller and  
Ball-Bearing

## Store Ladders



R-W No. 117

R-W No. 117-B

As shown in the illustration, the bottom fixtures on the No. 117 and the ledge rollers on the No. 117-B carry the entire weight; the upper fixtures operating on the pole track act only as a guide.

Ladders are made of oak or pine, selected and kiln dried. Steps are let into the sides and held by screws passing through the sides of ladder. A steel rod below the top and bottom steps and each fourth intermediate step passes through the ladder sides, tying them rigidly into place and prevents spreading.

Ladder sides are  $3\frac{1}{2}$  inches wide and steps 4 inches wide on ladders up to 14 feet; over 14 feet, sides are 4 inches wide and steps 5 inches wide. Steps are 14 inches long between ladder sides.

Oak ladders will be finished in dark golden oak unless otherwise specified. Pine ladders are filled and varnished. When special finishes are required ladders will be shipped

unfinished so that customer may finish same to suit self on job.

Straight ladders can be set close to shelving when not in use, as the upper fixture has a self-adjusting vertical slide, which also conforms to unevenness in floor. Straight ladders furnished with ball-bearing, rubber, fibre-tired, or all metal wheels for bottom of ladder. Bent ladders have roller-bearing wheels running on half-round ledge track. Straight ladders will be substituted for bent ladders whenever ledge is narrow enough to make the straight ladder approximately parallel with the lower part of the shelving.

Track is attached to the uprights of shelving, edge of shelves or to cornice as shown above. Brackets are not attached, so as to allow spacing according to location of uprights, etc. Fixtures, both top and bottom described on opposite page. Top fixtures will require 6 inches of head-room above bottom of track.



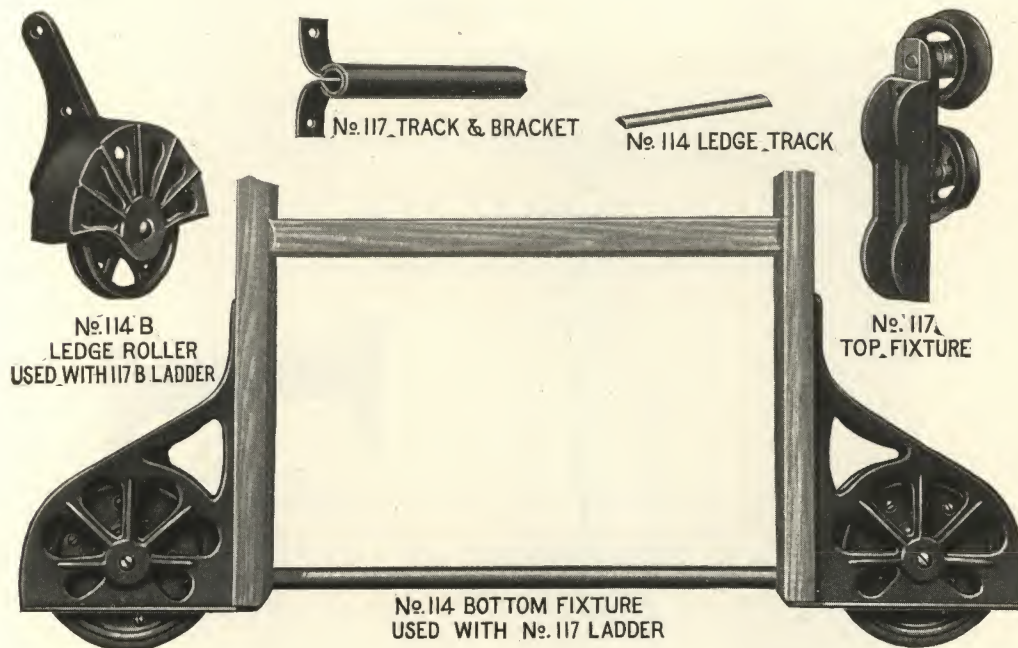
R-W Nos.  
117 and 117-B



Roller and  
Ball-Bearing

## Store Ladders

(Continued)



Top Fixtures—Wheels, both track and guide, are grey iron, lathe turned. Adjustment vertical, self-adjusting. Finish, dead black except on special order.

Bottom Fixtures—For straight ladders.

Wheels, steel. Tired wheels made in two sections, permitting tires to be removed easily; all metal wheels made in one piece. Bearings, steel balls. Frames, grey iron. Tired wheels furnished with rubber or fibre tires. Finish, dead black except on special order.

For Bent Ladders:

Wheels, grey iron, lathe turned, to fit half-round ledge track. Bearings, steel rollers. Frames, grey iron. Finish, dead black except on special order.

Track, tubular steel type,  $1\frac{3}{8}$  inches diameter, selected ash, kiln dried. Furnished with steel brackets regular, spaced on 30-inch centers. These are not attached so as to allow spacing according to location of uprights, etc.

### List Price

The following list price includes standard length ladders up to 14 feet, complete with top and bottom fixtures. Track is not included.

	Rubber Tired	Fibre Tired	All Metal	
No. 117 Oak Straight Ladder ( $3\frac{1}{2}$ lbs. per foot). Complete.....	\$27.00	\$30.00	\$27.00	
No. 117 Hard Pine Straight Ladder (3 lbs. per foot). Complete.....	24.00	28.00	24.00	
No. 117 Top Fixtures only ( $5\frac{1}{2}$ lbs.). Per set.....				\$6.00
No. 117 Bottom Fixtures only (13 lbs.). Per set.....	10.00	14.00	10.00	
No. 117 Ladder Track with regular brackets ( $\frac{1}{2}$ lb.). Per foot.....				.40
No. 117-B Oak Bent Ladder ( $3\frac{1}{2}$ lbs. per foot). Complete.....				29.00
No. 117-B Hard Pine Bent Ladder (3 lbs. per foot). Complete.....				27.00
No. 117-B Top Fixtures only ( $5\frac{1}{2}$ lbs.). Per set.....				6.00
No. 117-B Bottom Fixtures only ( $6\frac{1}{2}$ lbs.). Per set.....				6.00

Discount.....

Note—For ladders over 14 feet long add \$2.00 net for each additional foot.

Note—Ledge Track for No. 117-B is included with price of ladder complete.

### Directions for Ordering

See page 411. Give all dimensions asked for and send sketch.



R-W Nos.  
115 and 115-B



Steel Frame  
Ball-Bearing

## Steel Store Ladders



No. 115 R-W No. 115-B  
Patented



Wood Step  
Slotted Steel Frame

As shown in the illustration, the bottom fixtures both on the No. 115 and No. 115-B carry the entire weight. The upper fixtures operating on the track act only as a guide.

Ladders are a combination of steel sides and oak steps. Sides are slotted steel tubing and are furnished in one length up to 14 feet; steps are of selected oak arranged for adjustable attachment to sides at any desired angle or spacing through the slot in tubing. Steps are 4½ inches wide and 14 inches long.

Straight ladders can be set close to shelving when not in use, as the upper fixture has a self-adjusting vertical slide which also compensates for unevenness in floor, permitting side ladder to be carried to vertical position and clear aisle.

Straight ladders will be substituted for bent ladders when ledge is narrow enough to make straight ladder approximately parallel with lower part of the shelving.

Bent ladders are furnished with ladder sides bent to the proper degree of angle.

Adjustment in pendant allows wheels to set perpendicular with track.

Ladder sides are finished regularly in a rustless dead black. Steps are filled golden oak and waxed finish. Top and bottom fixtures in the rustless dead black finish. On special finishes, prices will be quoted on application.

Bottom fixtures furnished with ball-bearing, rubber, fibre-tired or all metal wheels.

Track is attached to the uprights of shelving, edge of shelves or to cornice as shown above.

Top fixtures require 5 inches of headroom above bottom of track.

Fixtures, both top and bottom, described on opposite page.

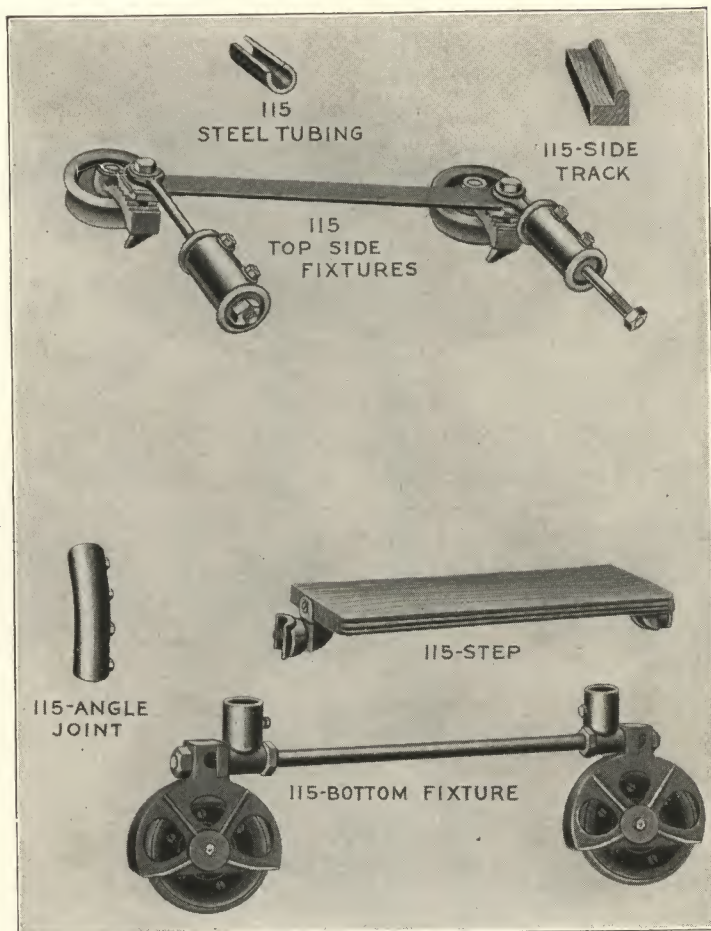


R-W Nos.  
115 and 115-B



Steel Frame  
Ball-Bearing

## Steel Store Ladders (Continued)



Top Fixtures—Wheels, grey iron, lathe turned. Bearings, steel rollers. Pendant, malleable iron, adjustable to keep the wheels perpendicular to track. Finish, rustless dead black except on special order.

Bottom Fixtures—Wheels, steel. Tired wheels made in two sections, permitting tires to be removed easily. Bearings, steel balls. Frames, grey iron. Tired wheels furnished with rubber or fibre tires. Finish, rustless dead black except on special order.

Track—Selected hard maple, kiln dried. Furnished up to 14 feet in one length. Unless otherwise specified, we

furnish the runs of track in such lengths that work out to best advantage. Track can be attached with wood screws or stove bolts according to existing conditions. These are not furnished with track. Finish, natural.

Steps—Selected oak and kiln dried, 4½ inches wide and 14 inches long. Furnished complete with bracket, clamp and nut. Finish, golden oak, filled and waxed. On special finishes prices will be quoted on application.

Ladder Sides—Steel tubing, slotted to allow nut to be inserted. Steps can be attached at any angle and spaced any distance apart. Finish, rustless dead black except on special order.

### List Price

The following list price includes standard length ladder up to 14 feet, complete with top and bottom fixtures.

	Rubber Tired	Fibre Tired	All Metal	
No. 115 Steel Straight Ladder (3½ lbs. per foot). Complete.....	\$24.00	\$28.00	\$24.00	
No. 115 Top Fixtures only (9 lbs.). Per set.....	10.00	14.00	10.00	\$6.00
No. 115 Bottom Fixtures only (12 lbs.). Per set.....				
No. 115 Ladder Track (½ lb.). Per foot.....				.40
No. 115-B Steel Bent Side Ladder (3½ lbs.). Complete.....	27.00	31.00	27.00	
No. 115-B Top Fixtures only (9 lbs.). Per set.....				6.00
No. 115-B Bottom Fixtures only (12 lbs.). Per set.....				6.00

Discount.....

### Directions for Ordering

See page 411. Give all dimensions asked for and send sketch.

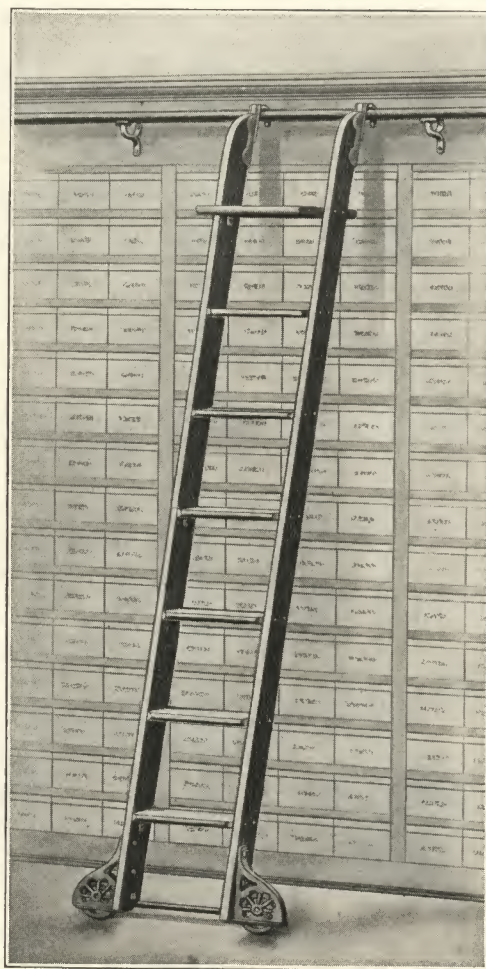


R-W No. 116



Ball-Bearing

## Portable Store Ladders



These fixtures require a minimum of four inches of head-room above the bottom of the track.

As shown in the illustration, the bottom fixtures carry the entire weight. The upper fixtures hook over the pole track which acts only as a guide.

Ladders are made of oak or pine, selected and kiln dried. Steps are let into sides and held by screws passing through the side of the ladder. A steel rod below the top and bottom steps and each fourth intermediate step passes through the ladder sides tying them rigidly into place and prevents spreading.

Ladder sides are  $3\frac{1}{2}$  inches wide and steps are 4 inches wide on the ladders up to 14 feet long. Over 14 feet the sides are 4 inches wide and steps 5 inches wide. Steps are 14 inches long between the ladder sides.

Oak ladders will be finished in dark golden oak unless otherwise specified. Pine ladders are filled and varnished. When special finishes are required ladders will be shipped unfinished so that customer may finish same to suit self on job.

The upper fixture has a self-adjusting vertical slide which prevents it from unhooking from the track when the bottom of the ladder is moved up against the shelving.

Ladders are furnished with ball-bearing, rubber-tired, fibre-tired or all metal wheels for bottom of the ladders. Track is attached to the uprights of shelving, bottom of shelves or to cornice.

Brackets are not attached to track at the factory. This is to allow spacing according to the location of the uprights, etc. Fixtures both top and bottom are described on the next page.



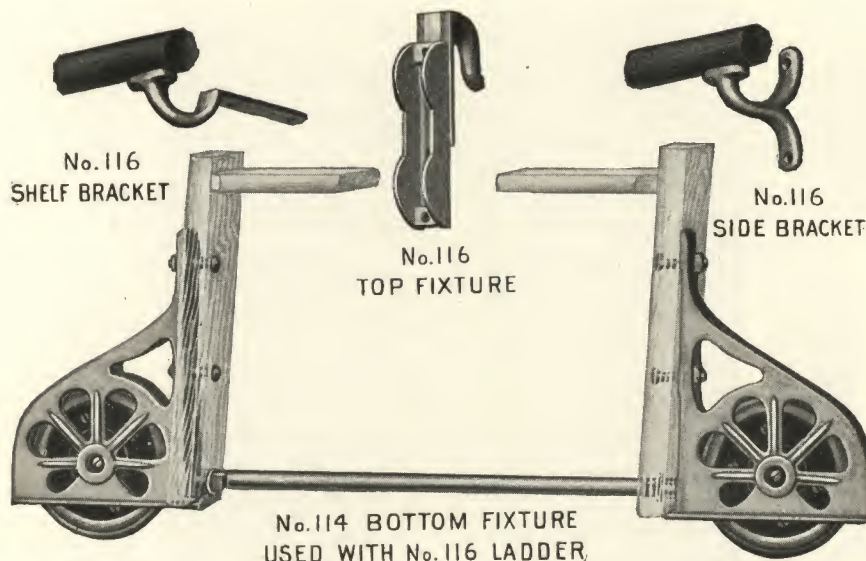
R-W No. 116



Ball-Bearing

## Portable Store Ladders

(Continued)



Top Fixtures—Made of grey iron. Adjustment; vertical, self-adjusting. Finish, dead black except on special order.

Bottom Fixtures—Wheels, steel. Tired wheels are made in two sections, permitting the tires to be removed easily. All metal wheels made in one piece. Bearings, steel balls. Frames, grey iron. Tired wheels are furnished with rubber

or fibre tires. Adjusting rod for aligning the wheels. Finish, dead black except on special order.

Track—Pole type  $1\frac{3}{8}$  inches diameter, made of selected ash, kiln dried, furnished with grey iron brackets of two designs as shown in the illustration. Brackets spaced 30-inch centers. These are not attached at the factory so as to allow spacing according to location of uprights.

### List Price

The following list price includes standard length ladders up to 14 feet, complete with top and bottom fixtures. Track is not included.

	Rubber Tired	Fibre Tired	All Metal	
No. 116 Oak Straight Ladder ( $3\frac{1}{2}$ lbs., per foot). Complete.....	\$27.00	\$29.00	\$27.00	
No. 116 Hard Pine Straight Ladder (3 lbs. per foot). Complete.....	24.00	27.00	24.00	
No. 116 Top Fixtures only ( $3\frac{1}{2}$ lbs. per set). Per set.....				\$5.00
No. 116 Bottom Fixtures only (13 lbs. per set).....	10.00	14.00	10.00	
No. 114 Ladder Track with No. 116 Shelf Brackets or No. 116 Side Brackets. ( $\frac{3}{4}$ lbs. per foot). Per foot.....				.40

Discount.....

Note—For ladders over 14 feet long add \$2.00 net for each additional foot.

### Directions for Ordering

See page 411. Give all dimensions asked for and send sketch.



**R-W No. 109****Ball-Bearing****Ceiling Store Ladders**

Ladders are made of oak or pine, selected and kiln dried. Steps are let into the sides and held by screws passing through the sides of ladder. A steel rod below the top and bottom steps and each fourth intermediate step passes through the ladder sides tying them rigidly into place and prevents spreading.

Ladder sides are  $3\frac{1}{2}$  inches wide and steps 4 inches wide on ladders up to 14 feet; over 14 feet, sides are 4 inches wide and steps 5 inches wide. Steps are 12 inches long between ladder sides.

Oak ladders will be finished in dark golden oak unless otherwise specified. Pine ladders are filled and varnished.

When special finishes are required ladders will be shipped unfinished so that customer may finish same to suit self on job.

Bottom fixtures furnished with roller-bearing rubber or fibre-tired wheels.

Track is attached with brackets to ceiling. These brackets should be spaced not to exceed 36 inches. Unless otherwise specified, parallel ear brackets as shown in cut on opposite page will be furnished.

Fixtures, both top and bottom, described on opposite page.



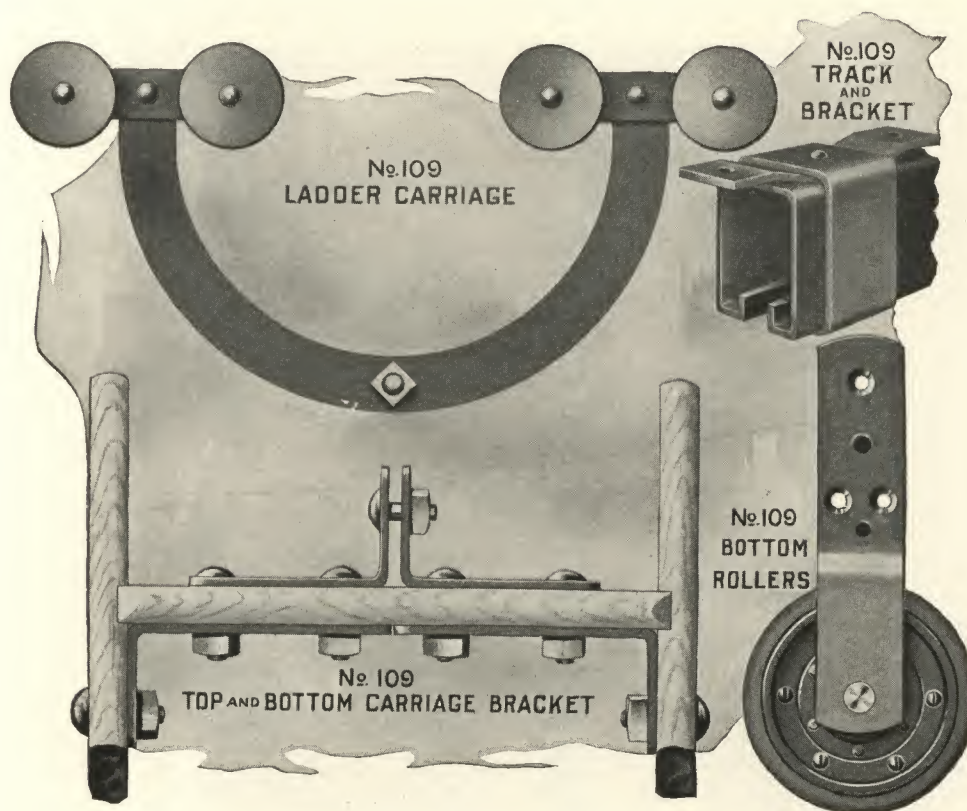
R-W No. 109



Ball-Bearing

## Ceiling Store Ladders

(Continued)



Top Fixtures—Wheels, vulcanized fibre, 2 $\frac{1}{8}$  inches in diameter. Bearings, steel rollers. Crescent and top step irons, heavy steel. Finish, dead black except on special order.

Bottom Fixtures—Wheels, steel. Made in two sections, permitting tires to be easily removed. Ball-bearing. Steel

frames. Furnished with rubber or fibre tires. Finish, dead black except on special order.

Track—Trolley type, 16-gauge steel. Furnished with No. 7x31 parallel ear center brackets on 36-inch centers and one 8x31 parallel ear end bracket for each end. Finish, black japan.

### List Price

The following list price includes standard length ladders up to 14 feet, complete with top and bottom fixtures. Track is not included.

	Rubber Tired	Fibre Tired	
No. 109 Oak Ceiling Ladder (3 $\frac{1}{2}$ lbs. per foot). Complete.....	\$29.00	\$34.00	
No. 109 Hard Pine Ladder (3 lbs. per foot). Complete.....	27.00	31.00	
No. 109 Top Fixtures only (3 lbs.). Per set.....			\$6.75
No. 109 Bottom Fixtures only (5 lbs.). Per set.....	9.25	13.25	
No. 109 Ladder Track, with brackets (2 lbs.). Per foot.....			.40

Discount.....

**Note**—For ladders over 14 feet long add \$2.00 net for each additional foot.

### Directions for Ordering

See page 411. Give all dimensions asked for and send sketch.

*Ladders make available space that would otherwise be inaccessible*



R-W No. 209



Ball-Bearing

## Ceiling Store Ladders



Ladders are made of oak or pine, selected and kiln-dried. Steps are let into the sides and held by screws passing through the sides of the ladder. A steel rod below the top and bottom steps and each fourth intermediate step passes through the ladder sides tying them rigidly into place, and prevents spreading.

Ladder sides are  $3\frac{1}{2}$  inches wide and steps 4 inches wide on ladders up to 14 feet. Over 14 feet, sides are 4 inches wide and steps 5 inches wide. Steps are 12 inches long between ladder sides.

Oak ladders will be finished in dark golden oak unless otherwise specified.

Pine ladders are filled and varnished.

When special finishes are required ladders will be shipped unfinished so that customer may finish same to suit self on job.

Bottom fixtures furnished with roller-bearing rubber or fibre tired wheels.

Track is wood lined and attached with brackets to ceiling. These brackets should be spaced not to exceed 36 inches. Unless otherwise specified, parallel ear brackets as shown in cut on opposite page will be furnished.

Fixtures, both top and bottom, described on opposite page.



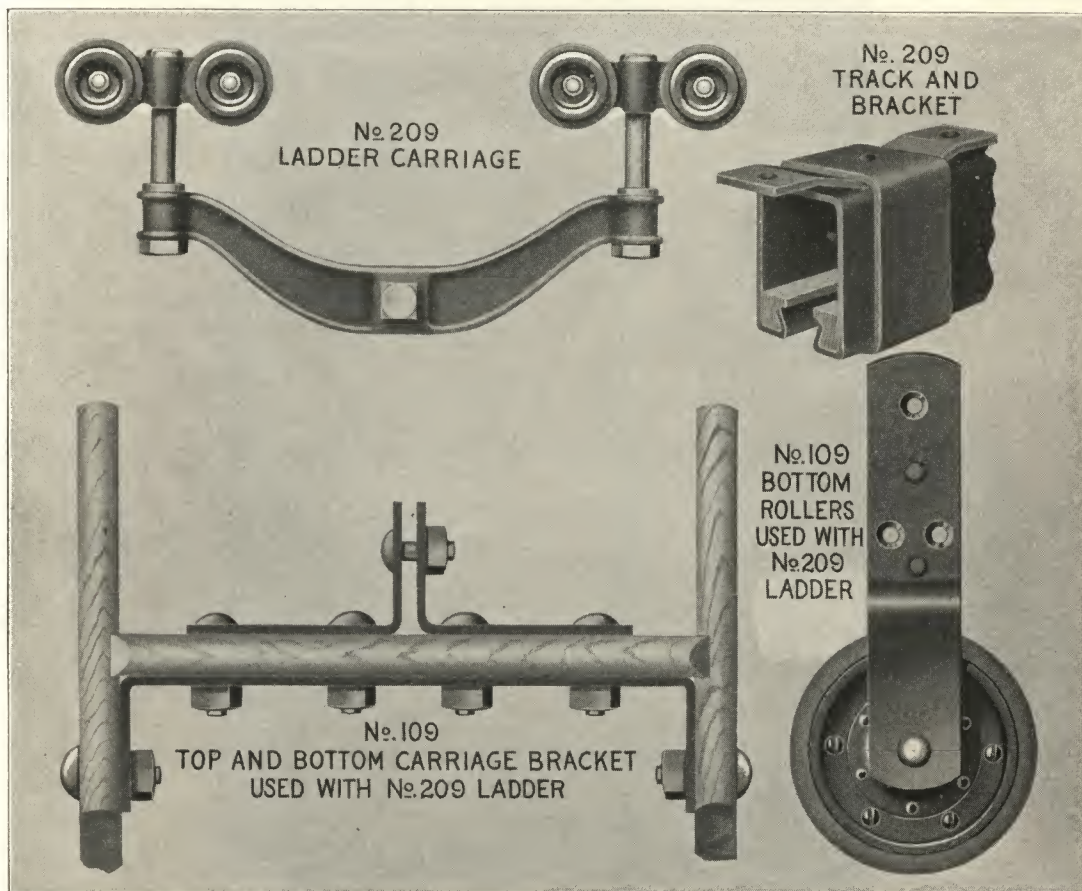
R-W No. 209



Ball-Bearing

## Ceiling Store Ladders

(Continued)



Top Fixtures—Wheels, steel,  $1\frac{7}{8}$  inches diameter. Bearings, steel balls. Connecting bar, malleable iron. Top step irons, heavy steel. Finish, dead black except on special order.

Bottom Fixtures—Wheels, steel. Made in two sections, permitting tires to be removed easily. Bearings, steel

balls. Steel frames. Furnished with rubber or fibre tires. Finish, dead black except on special order.

Track—16-gauge steel and hard maple lined, clincher type. Furnished with No. 7x526 parallel ear center brackets on 36-inch centers and one No. 8x526 parallel ear end bracket for each end. Finish, black japan.

### List Price

The following list price includes standard length ladders up to 14 feet, complete with top and bottom fixtures. Track is not included.

	Rubber Tired	Fibre Tired	
No. 209 Oak Ceiling Ladder ( $3\frac{1}{2}$ lbs. per foot). Complete.....	\$30.00	\$34.00	
No. 209 Hard Pine Ladder (3 lbs. per foot). Complete.....	27.00	31.00	
No. 209 Top Fixtures only ( $3\frac{1}{2}$ lbs.). Per set.....			\$6.00
No. 209 Bottom Fixtures only (5 lbs.). Per set.....	6.00	10.00	
No. 209 Ladder Track, with brackets ( $2\frac{1}{2}$ lbs.). Per foot.....			.70

Note—For ladders over 14 feet long add \$2.00 net for each additional foot.

Discount.....

### Directions for Ordering

See page 411. Give all dimensions asked for and send sketch.



R-W No. 409



Ball-Bearing

## Ceiling Store Ladders



A strong and attractive ladder built with an eye to durability, and smooth operation. The large diameter of the wheels and the long wheel base of the top fixture insure easy and smooth operation. The fixture cannot jump the track.

Ladders are made of selected oak or pine kiln-dried. The steps are set into the sides and held by screws passing through the sides of the ladder. A steel rod below the top and bottom steps and each fourth intermediate step passes through the ladder sides tying them rigidly into place, and prevents spreading.

Ladder sides are  $3\frac{1}{2}$  inches wide and steps 4 inches wide on ladders up to 14 feet. Over 14 feet, sides are 4 inches wide and steps 5 inches wide. Steps are 12 inches long between ladder sides.

Oak ladders will be furnished in dull golden oak unless otherwise specified.

Pine ladders are filled and varnished.

When special finishes are required ladders will be shipped unfinished so that customer may finish same to suit self on job.

Bottom fixtures furnished with roller-bearing rubber or fibre tired wheels.

The track is attached with brackets to the ceiling. These brackets should be spaced not to exceed 36 inch centers. Track is made of hard maple, see illustration on opposite page.

Fixtures both top and bottom are described on next page.



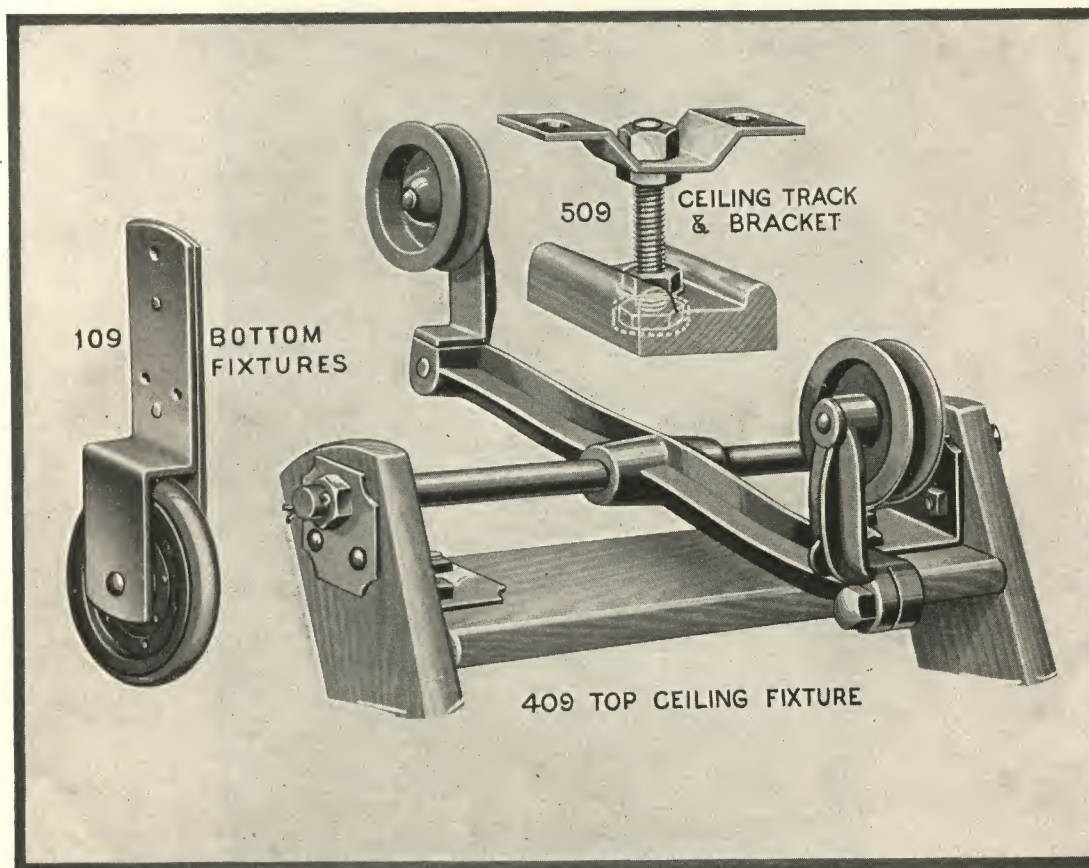
R-W No. 409



Ball-Bearing

## Ceiling Store Ladders

(Continued)



Top Fixtures—Wheels, grey iron, lathe turned. Bearings, combination roller and bronze bush. Pendant, malleable iron. Finish, dead black except on special order.

Bottom Fixtures—Wheels, steel. Made in two sections permitting tires to be removed easily. Bearings, steel balls. Steel frames. Furnished with rubber or fibre tires. Finish, dead black except on special order.

Track—Selected hard maple kiln dried. Furnished up to 15 feet in one length. Unless otherwise specified we furnish the runs of track in such lengths as will work out to best advantage. Track is attached with brackets which are to be attached to ceiling. One bracket is furnished for each 3 feet of track. Finish, natural wood.

Brackets—Made of steel; rustless dead black finish.

### List Price

The following list price includes standard length ladders up to 14 feet complete with top and bottom fixtures. Track is not included.

	Rubber Tired	Fibre Tired	Price Per Ft.
No. 409 Oak Ceiling Ladder (3½ lbs. per foot). Complete.....	\$29.00	\$34.00	
No. 409 Hard Pine Ladder (3 lbs. per foot). Complete.....	27.00	31.00	
No. 409 Top Fixtures only (7 lbs.). Per set.....			\$6.75
No. 409 Bottom Fixtures only (5 lbs.). Per set.....	9.25	13.25	
No. 509 Ladder Track with Brackets (2½ pounds per foot).....			.40

Discount.....

### Directions for Ordering

See page 411. Give all dimensions asked for and send sketch.

*When specifying ladders—remember those made by R-W!*



R-W No. 509

Patented



Ball-Bearing

## Ceiling Store Ladders



Ladders are a combination of steel sides and oak steps. Sides are slotted steel tubing and are furnished in one length up to 14 feet; steps are of selected oak arranged for adjustable attachment to sides at any angle or spacing through the slot in tubing. Steps are  $4\frac{1}{2}$  inches wide and 14 inches long.

Ladder sides are finished regularly in a rustless dead black. Steps are filled golden oak and waxed finish. Top

and bottom fixtures in the rustless dead black finish. On special finishes, prices will be quoted on application.

Bottom fixtures furnished with ball-bearing, rubber, fibre-tired or all metal wheels.

Track is attached with brackets to ceiling. These brackets should be spaced not to exceed 36 inches. Track is made of hard maple; see illustration on opposite page.

Fixtures, both top and bottom, described on opposite page.



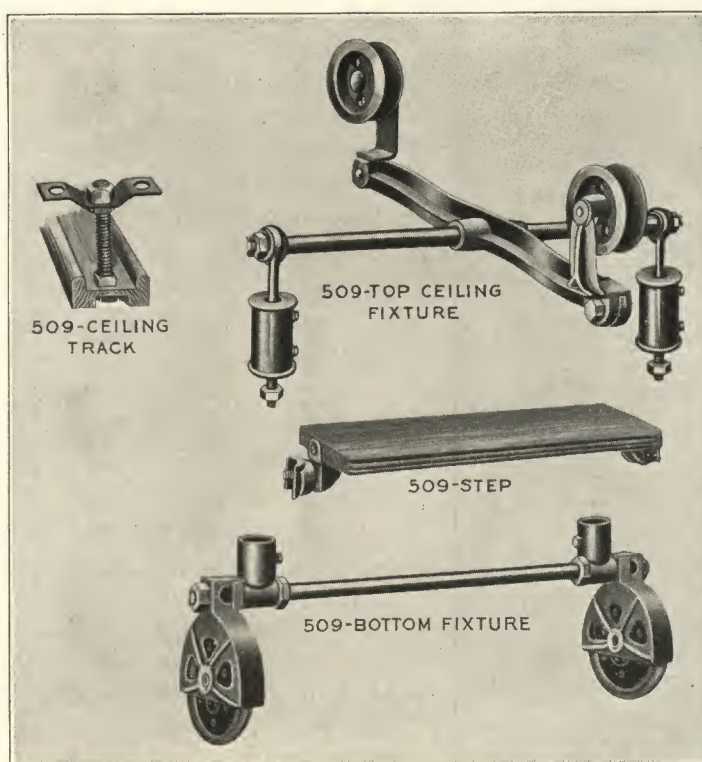
R-W No. 509



Ball-Bearing

## Ceiling Store Ladders

(Continued)



**Top Fixtures**—Wheels, grey iron, lathe turned. Bearings, combination bronze bush and steel rollers. Pendant, malleable iron. Finish, rustless dead black.

**Bottom Fixtures**—Wheels, tired wheels are steel, all metal wheels are grey iron. Tired wheels made in two sections, permitting tires to be removed easily. Bearings, steel balls. Frames, grey iron. Tired wheels furnished with rubber or fibre tires. Finish, dead black except on special order.

**Track**—Selected hard maple, kiln dried. Furnished up to 15 feet in one length. Unless otherwise specified, we furnish the runs of track in such lengths that will work out to best advantage. Track is attached with brackets, which

are to be attached to ceiling. One bracket is furnished for each 3 feet of track. Finish, natural wood.

**Brackets**—Made of steel, dead black finish except on special order.

**Steps**—Selected oak, kiln dried, 4½ inches wide and 14 inches long. Furnished complete with bracket, clamp and nut. Finish, golden oak filled and waxed. On special finishes, prices will be quoted on application.

**Ladder Sides**—Steel tubing slotted, to allow nut to be inserted. Steps can be attached at any angle and spaced any distance apart. Finish, dead black except on special order.

### List Price

	Rubber Tired	Fiber Tired	All Metal	
No. 509 Steel Ceiling Ladder (3½ lbs. per foot). Complete.....	\$27.00	\$31.00	\$27.00	
No. 509 Top Fixtures only (10½ lbs.). Per set.....				\$6.00
No. 509 Bottom Fixtures only (11½ lbs.). Per set.....	10.00	14.00	10.00	
No. 509 Ceiling Ladder Track (1¼ lbs.). Per foot.....				.40

Discount.....

### Directions for Ordering

See page 411. Give all dimensions asked for and send sketch.



No. 709



## Ladder Goes Around Curve



Sometimes it is necessary to run a ladder on a curved track and when such is the case No. 709 ladder can be used. We do not encourage this arrangement, however, as it is preferable to use separate ladders on each section of track.

Ladders are made of oak or pine, selected and kiln dried. Steps are let into the sides and held by screws passing through the sides of ladder. A steel rod below the top and bottom steps and each fourth intermediate step passes through the ladder sides tying them rigidly into place and prevents spreading.

Ladder sides are  $3\frac{1}{2}$  inches wide and steps 4 inches wide on ladders up to 14 feet; over 14 feet, sides are 4 inches wide and steps 5 inches wide. Steps are 12 inches long between ladder sides.

Oak ladders will be finished in dark golden oak unless otherwise specified. Pine ladders are filled and varnished. When special finishes are required ladders will be shipped unfinished so that customer may finish same to suit self on job.

Track is attached to the ceiling with brackets. These brackets should be spaced not to exceed 36" centers. Unless otherwise specified parallel ear brackets will be furnished for the straight track and cross-ear brackets, as shown in illustration, will be furnished for the curves. Each curve should have at least three brackets. The curved track cannot have less than a 24" radius, but of course may have any larger radius desired.

Brackets—Made of steel, rustless dead black finish.

Top Fixture—Is swiveled and has a trailer connected to the sides of the ladder to prevent it from tipping. The wheels are ball-bearing. Finish, rustless dead black.

Bottom Fixture—Wheels, grey iron, lathe turned, ball-bearing, mounted on swivel brackets, made in two sections so as to permit the tires to be removed easily, furnished with rubber or fibre tires. Frames, grey iron. Finish, rustless dead black.

### List Price

The following list price includes standard length ladders up to 14 feet, complete with top and bottom fixtures. Track is not included.

	Rubber Tired	Fibre Tired	
No. 709 Oak Ladder ( $3\frac{1}{2}$ lbs. per foot). Complete.....	\$45.00	\$48.00	
No. 709 Hard Pine Ladder (3 lbs. per foot). Complete.....	42.00	45.00	
No. 709 Top Fixtures only (15 lbs.). Per set.....			\$18.00
No. 709 Bottom Fixtures only (10 lbs.). Per set.....	9.00	13.00	
No. 709 Straight Ladder Track, with brackets (2 lbs.). Per foot.....			.40
No. 709 Curved Ladder Track, with brackets (2 lbs.). Per foot.....			1.80

Discount.....

Note—For ladders over 14 feet long add \$2.00 net for each additional foot.

### Directions for Ordering

See page 411. Give all dimensions asked for and send sketch. Mention radius desired.



## No. 179 Ladder Brake

No. 179 x 109 for No. 109 Ladders  
(See Pages 400, 401)

No. 179 x 209 for No. 209 Ladders  
(See Pages 402, 403)

WHEN it is necessary to work or to handle awkward material from ceiling ladders it is desirable to equip the ladders with brakes to prevent them from moving while the operator is standing on the ladder.

This is a safety device.

The brake is released by the lever which is attached to the side of the ladder. It may be operated from the ladder by the foot or from the floor by the hand. The brake is on at all times and must be released to operate the ladder. Made to fit R-W Nos. 109 and 209 Ladders. (See Pages 400 and 402).

Finish: Jet Black.

### List Price

No. 179 x 109 Ladder Brake.	Wt. 7 lbs.....	\$7.00
No. 179 x 209 Ladder Brake.	Wt. 7 lbs.....	7.00

Discount.....



Fig. A-1972



## Rolling Ladders Combined with Rolling Platforms



Fig. A-1973

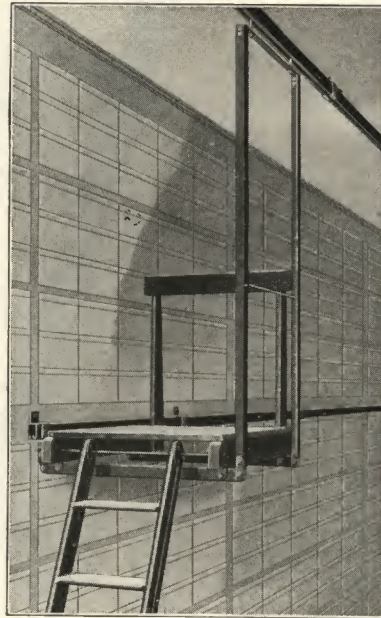


Fig. A-1975



Fig. A-1976



Fig. A-1974

Rolling Ladder Platforms differ with nearly every installation. So many and varied are the conditions to be met, we have not attempted to standardize any of the several types now in general use. Instead we deem it better to build every Rolling Ladder Platform to special order, to conform them to the existing conditions at the point of installation. This method has proven to be more satisfactory in every way than building standard sizes and having the user have to adapt his conditions to them.

After knowing the requirements of a proposed Rolling Platform, the material to be handled in connection with its operation, after receiving a sketch of the adjacent bins, shelves, walls and ceiling, we take pleasure in submitting blue prints from our engineering department showing our recommendations.

Illustration shows No. 209 Ceiling Ladder and trolley track equipment (page 402). The No. 100-26 four wheel carriage (page 330), runs in the same trolley track as does the wheels of the top fixture of the ladder, and supports the chain hoist (page 382), which in turn raises and lowers the steel box, containing heavy steel dies and machine parts, to their storage place on the various shelves.

Fig. A-1973

This style platform is very popular for medium weight work. It consists of a No. 409 Ceiling Ladder (page 404), less top fixtures, hinged to a rolling platform, is further supplied with four ball-bearing wheels (see page 354) which operate on angle iron track, which runs the length of the aisle. Wrought Steel Corner Irons and Mending Plates (page 445) are used to reinforce the uprights of the platform.

Fig. A-1974

An excellent light rolling platform. Consists of a No. 209 or No. 409 Ceiling Ladder attached to one edge of a rolling platform by means of a steel rod. As can be seen the platform is supported not only by two No. 27½-B ball-bearing carriages (page 215) which run in trolley track attached to the ceiling but also by two of the same carriers which run in trolley track attached to the shelving.

Fig. A-1975

Illustration shows No. 409 Ceiling Ladder (page 404), less top fixtures, hinged to rolling platform. The platform is suspended by means of two ½-ton No. 925 Trolleys (page 352) which run on Steelbeam or I-Beam Track (page 358). Each of the lower four corners of the platform are equipped with a No. 154 Stay Roller (see page 435) which permits the platform to roll along smoothly

Fig. A-1976

and not catch or bind on the bins, even though the platform should sway from side to side while being operated. See Fig. A-1977 for further description of this illustration.

This illustration is of the same Rolling Platform as shown in Fig. A-1976. In the foreground, in front of the Rolling Platform, upon which stands a man, you see an iron floor truck full of heavy machinery parts, which has been raised to the level of the rolling platform by means of a chain hoist (see page 382). The hoist is suspended from a 2-Ton No. 925 Ball-Bearing Trolley (see page 352). This permits the filled truck to be moved any height and to wherever the rolling platform happens to be. Fig. A-1976 shows a similar outfit being used, but on the far side of the rolling platform.

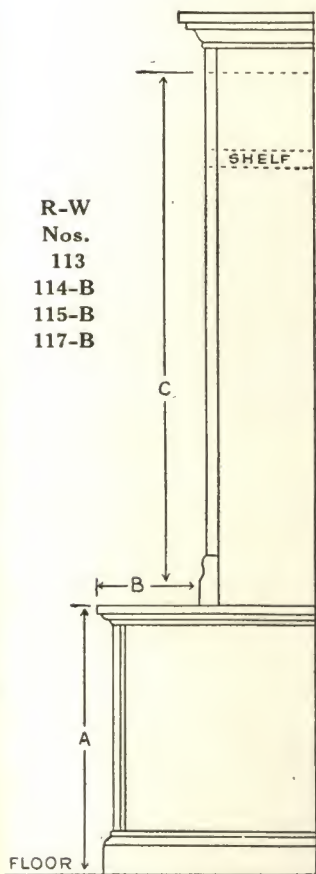
Fig. A-1977





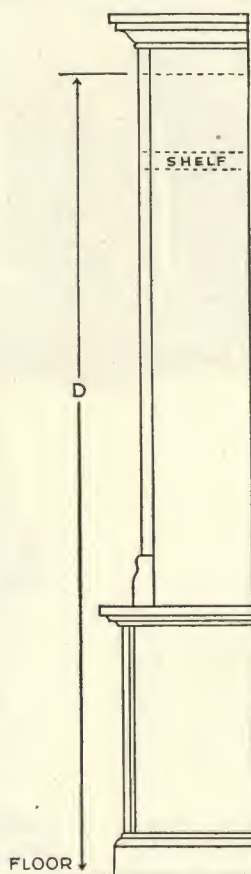
## Directions For Ordering

## Store Ladders



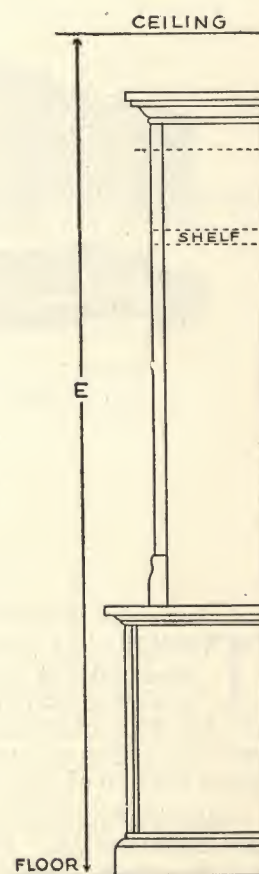
For Bent Side Ladder

R-W  
Nos.  
114  
115  
116  
117



For Straight Side Ladder

R-W  
Nos.  
109  
209  
409  
509



For Ceiling Ladder

On **bent side ladders** state following: 1st, distance from floor to ledge, (see A); 2nd, width of ledge, (see B); 3rd, distance from ledge to point where track will be attached, (see C); this dimension should be taken to bottom of track; 4th, if oak or pine ladder, (unless specified, oak ladder will be sent); 5th, finish desired, (unless specified, regular golden oak will be sent.)

On **straight side ladders** state following: 1st, distance from floor to point where track will be attached, (see D); this dimension should be taken to bottom of track; 2nd, if oak or pine ladder; (unless specified, oak ladder will be sent); 3rd, finish desired; (unless specified, regular golden oak will be sent); 4th, if rubber-tired, fibre-tired or all metal

bottom fixtures; (unless specified, rubber-tired bottom fixtures will be sent).

On **ceiling ladders** state following: 1st, distance from floor to ceiling (see E); 2nd, if oak or pine ladder; (unless specified, oak ladder will be sent); 3rd, finish desired; (unless specified, regular golden oak will be sent); 4th, if rubber-tired, fibre-tired or all metal bottom fixtures; (unless specified, rubber-tired bottom fixtures will be sent).

**Ladder Track**—State following for bent or straight side ladders; 1st, entire length of each run of track; 2nd, number of uprights for each run; 3rd, if uprights are straight faced or turned spindle; 4th, give dimensions of same, also distance of uprights from center to center.

**Note**—On ceiling ladders, the entire length of each run of track only is necessary.



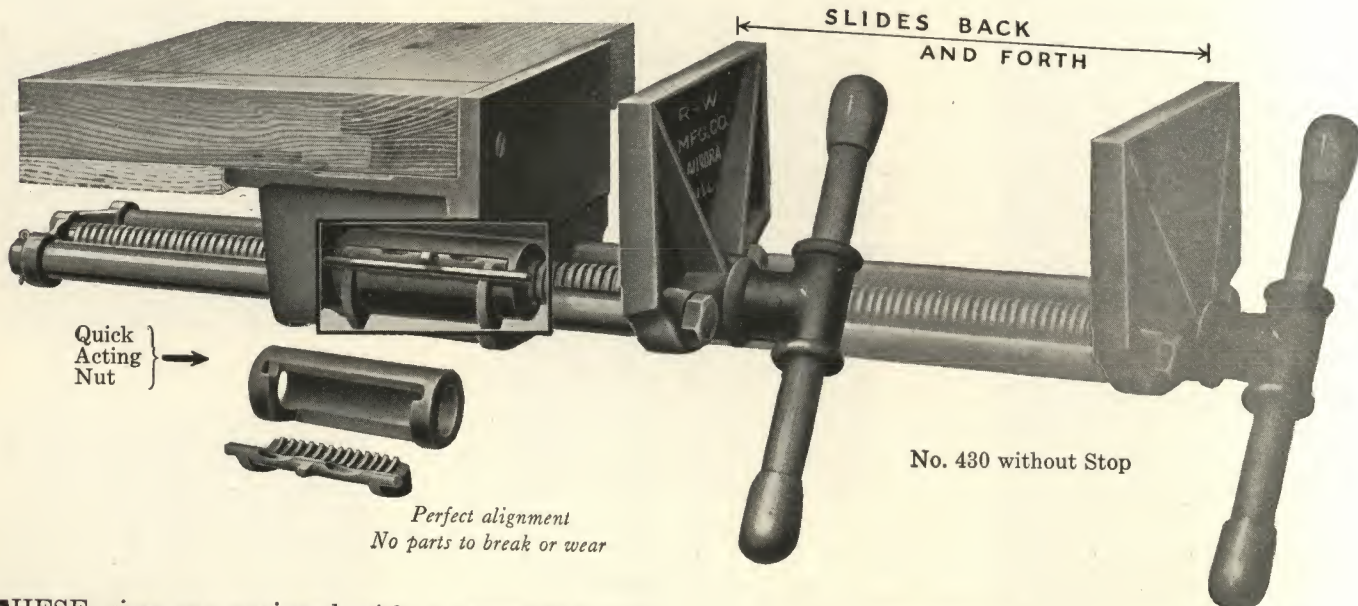
NO MORE ENDLESS TURNING

*Rapid Action—Saves Time!*

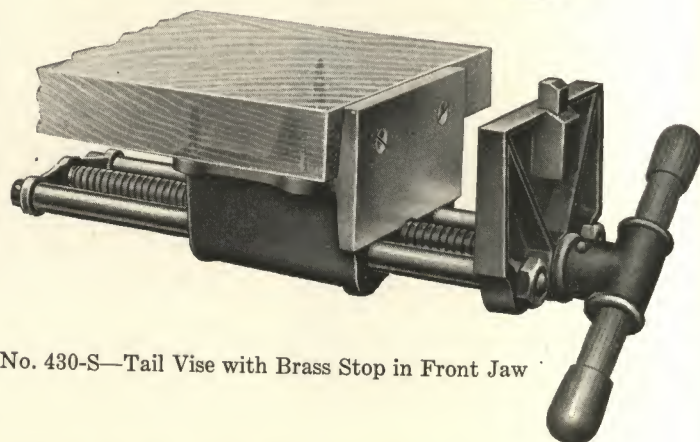
R-W Nos. 430 and 430-S

Patented

## Sliding-Vise



No. 430 without Stop



No. 430-S—Tail Vise with Brass Stop in Front Jaw

No. 2—Jaws, 10 inches wide, 5 inches deep, open 12 inches; screw, 1-inch diameter, 4 threads to the inch; weight 42 lbs.

Either type can be made specially to open any desired length. Jaws furnished with maple faces if wanted. Packed regularly six in a crate. If crated single, 10 cents extra.

THESE vises are equipped with a **two-piece** cam-operated nut, as illustrated above. Its mechanism is simple and absolutely reliable in operation and will not get out of order, as there are no small parts to wear out. The nut proper is phosphor bronze. The nut sleeve is made of grey iron.

Instantaneous adjustment. Continuous in action. Operates entire length. Nut is released and completely disengaged when pressure on work is removed by slight reverse movement of handle. When pressure is applied nut engages and locks screw firmly and is held rigidly in position.

No pawls, racks or triggers to break or wear.

Guide rods are of cold rolled steel, the ends connected by malleable iron yoke which maintains perfect alignment.

Jaws are of best grey iron with working surfaces ground and finished. Special design of ribs on jaws secures minimum deflection or spring under pressure, as well as minimum weight.

Made in two sizes. Either size furnished with Stop if desired.

No. 1—Jaws, 7 inches wide, 4 inches deep, open 10 inches; screw, 1-inch diameter, 4 threads to the inch; weight, 32 lbs.

### List Price

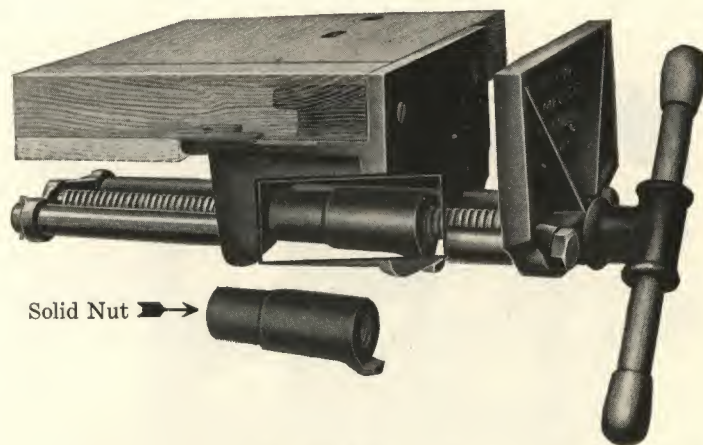
No. 430 -1.	Each	.....	\$7.20
No. 430S-1.	Each	.....	8.00
No. 430 -2.	Each	.....	8.60
No. 430S-2.	Each	.....	9.00
Maple-faced Jaws.	Per pair	.....	.60
Quick Acting Vise Nut.	Complete	.....	1.80

Discount.....



## R-W Nos. 630 and 630-S Woodworking Vises with Solid Nut

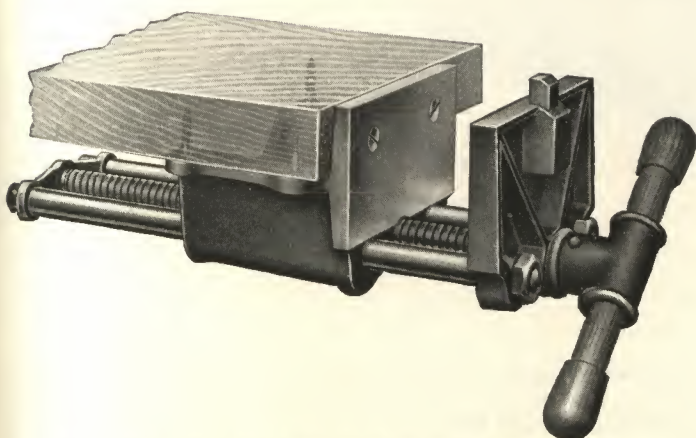
Made in Two Sizes



No. 630 Without Stop

Very  
Substantial

Operates  
Easily and Smoothly



No. 630-S—Tail Vise with Brass Stop in Front Jaw.  
Solid Nut of Cast Iron

All R-W Vises  
Have Hard Wood Handles

Jaws Furnished With  
Maple Faces if Desired

No pawls, racks or triggers to break or wear.

Guide rods are of cold rolled steel, the ends connected by malleable iron yoke which maintains perfect alignment.

Jaws are of best grey iron with working surfaces ground and finished. Special design of ribs on jaws secures minimum deflection or spring under pressure, as well as minimum weight.

Made in two sizes. Either size furnished with stop if desired.

No. 1—Jaws, 7 inches wide, 4 inches deep, open 10 inches; screw, 1-inch diameter, 4 threads to the inch; weight, 32 lbs.

No. 2—Jaws, 10 inches wide, 5 inches deep, open 12 inches; screw, 1-inch diameter, 4 threads to the inch; weight, 42 lbs.

Either type can be made specially to open any desired length. Jaws furnished with maple faces if wanted. Packed regularly six in a crate. If crated single, 10 cents extra.

### List Price

No. 630 -1.	Each	.....	\$7.20
No. 630S-1.	Each	.....	8.00
No. 630 -2.	Each	.....	8.60
No. 630S-2.	Each	.....	9.00
Maple-faced Jaws.	Per pair	.....	.60

Discount.....



## R-W No. 360-A Manual Training Benches



The R-W No. 360 line of Manual Training Benches has been designed to meet the latest requirements of public school and of technical school manual training departments and laboratories. Authorities have been consulted and their best ideas have been incorporated in this new line of benches. The bench is also well adapted to home and shop use.

**Dimensions.** Height 32 inches, length 52 inches, width 22 inches.

**Top.** The working top is made of selected kiln dried hard maple 14 inches wide,  $2\frac{1}{4}$  inches thick. It is built up of narrow strips glued together and reinforced with  $\frac{1}{2}$  inch countersunk head bolts, which extend entirely through the top. The bolster at each end is securely bolted and glued to the main part of the working top. All bolt heads are sunk flush into the wood. The tool well is 7 inches wide and  $1\frac{3}{8}$  inches deep. It is recessed into the working top. A tool rack which can be screwed to the back of the bench is furnished with each bench.

**Frames.** Frame ends are made of kiln dried maple, birch or beech,  $1\frac{3}{4}$  inches thick by 3 inches wide. The separators between the frame ends are  $1\frac{3}{4}$  inches by 5 inches, secured to the frame ends with draw bolts. All parts of the frame ends and separators are joined by mortise and tenon joints well fitted and glued.

**Finish.** The entire bench is carefully surfaced and sanded. The benches are filled and varnished.

**Equipment.** Each bench is furnished with a quick acting bench stop and metal dog. The vise is the R-W No. 430-S-1 quick acting vise described on page 412. The vise is equipped with a stop dog.

**Special Bench.** This bench can be built special to take two vises if so required.

**Shipping Weight.** Shipped knocked down with one vise 155 lbs. Special with two vises 185 lbs.

### List Price

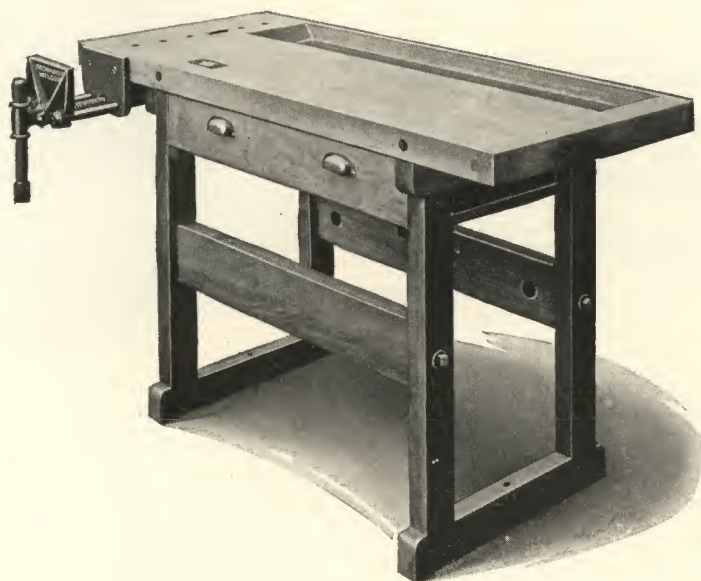
No. 360-A Bench, with one No. 430 Stop Vise.....	\$28.00
No. 360-A Special Bench, with two No. 430 Stop Vises.....	35.00

**Note**—For Double Benches see page 418.

**Discount**.....



## R-W No. 360-B Manual Training Benches



The R-W No. 360-B Bench is furnished with one large general tool drawer. The sides of the drawer are fitted together with a double lock joint and the bottom is mortised into the drawer sides all around. The bottom is made of a single piece of three-ply veneered wood  $\frac{5}{16}$  inches thick. Each drawer has two substantial metal drawer pulls.

**Dimensions.** Height 32 inches, length 52 inches, width 22 inches. Length of drawer 30 inches, height  $5\frac{1}{2}$  inches, depth 18 inches.

**Finish.** The entire bench is carefully surfaced and sanded. The benches are filled and varnished.

**Equipment.** Each bench is furnished with a quick acting bench stop and a metal dog. The vise is the R-W No. 430-S-1 Quick Acting Vise described on page 412. The vise is equipped with a stop dog.

**Shipping Weight.** Shipped knocked down, with one vise, 175 lbs.

### List Price

No. 360-B Bench, with one No. 430 Stop Vise.....\$30.00

**Note**—For Double Benches see page 418.

**Discount**.....



## R-W No. 360-C Manual Training Benches

The R-W No. 360-C is similar to the No. 360-B Bench shown on the previous page, except that it is furnished with two drawers. A separating panel is provided between the two drawers. Locks can be furnished for drawers when so ordered.

**Dimensions.** Height 32 inches, length 52 inches, width 22 inches. Length of drawer 30 inches, height 5½ inches, depth 18 inches.

**Finish.** The entire bench is carefully surfaced and sanded. The benches are filled and varnished.

**Equipment.** Each bench is furnished with a quick acting bench stop and a metal dog. The vise is the R-W No. 430-S-1 Quick Acting Vise described on page 412. The vise is equipped with a stop dog.

**Shipping Weight.** Shipped knocked down, with one vise, 190 lbs.



### List Price

No. 360-C Bench, with one No. 430 Stop Vise.....	\$33.00
No. 360 Drawer Locks, extra per drawer.....	.85

**Note**—For Double Benches see page 418.

*Discount*.....

## R-W No. 360-D Manual Training Benches

The R-W No. 360-D Bench is similar to the No. 360-C Bench illustrated above, except that it is furnished with three large drawers. A separating panel is provided between the drawers. Locks can be furnished for drawers when so ordered.

**Shipping weight.** Shipped knocked down, without vise, 205 lbs.; with one vise, 235 lbs.

### List Price

No. 360-D Bench, with one No. 430 Stop Vise.....	\$40.00
No. 360 Drawer Locks, extra per drawer.....	.85

*Discount*.....

**Note**—For Double Benches see page 418.





## R-W No. 360-E Manual Training Benches



The R-W No. 360-E Bench has one large general tool drawer and two small private locker drawers. Locks can be furnished for drawers when so ordered.

**Dimensions.** Height 32 inches, length 52 inches, width 22 inches. Length of large drawer 30 inches, height 5½ inches, depth 18 inches. Length of private locker drawers, 14½ inches, height 5½ inches, depth 18 inches.

**Finish.** The entire bench is carefully surfaced and sanded. The benches are filled and varnished.

**Equipment.** Each bench is furnished with a quick acting bench stop and a metal dog. The vise is the R-W No. 430-S-1 Quick Acting Vise described on page 412. The vise is equipped with a stop dog.

**Shipping Weight.** Shipped knocked down, with one vise 200 lbs.

### List Price

No. 360-E Bench, with one No. 430 Stop Vise.....	\$37.00
No. 360 Drawer Locks, extra per drawer.....	.85

*Discount*.....

**Note**—For Double Benches see page 418.

## R-W No. 360-F Manual Training Benches



The R-W No. 360-F Bench is similar to the No. 360-E Bench illustrated above, except that it has four small drawers instead of two.

**Shipping Weight.** Shipped knocked down, with one vise 240 lbs.

### List Price

No. 360-F Bench, with one No. 430 Stop Vise.....	\$44.00
No. 360 Drawer Locks, extra per drawer.....	.85

*Discount*.....

**Note**—For Double Benches see page 418.



## R-W Double Benches



The illustration on this page shows our No. 360-BB two pupil bench. The Double Bench can be furnished without drawers or with any combination of drawers shown in the single benches on the preceding pages.

**Dimensions.** Height 32 inches, length 52 inches, width 36 inches.

**Top.** The working top is made of selected kiln dried hard maple  $2\frac{1}{4}$  inches thick and each side is 14 inches wide. The top is built up of narrow strips glued together and reinforced with  $\frac{1}{2}$  inch countersunk head bolts which extend through each working top. The bolster at each end is securely bolted and glued to the main part of the working top. All bolt heads are sunk flush into the wood. The tool well is 8 inches wide by  $1\frac{3}{8}$  inches deep. It is recessed into the working tops. Tool rack with two tool holder strips is furnished with each bench.

**Frames.** Frame ends are made of kiln dried maple, birch or beech  $1\frac{3}{4}$  inches thick by 3 inches wide. The separators between the frame ends are  $1\frac{3}{4}$  inches by 5 inches, secured to the frame ends with draw bolts. All parts of the frame ends and separators are joined by mortise and tenon joints, well fitted and glued.

**Finish.** The entire bench is carefully surfaced and sanded. The benches are filled and varnished.

**Drawers.** Drawers are made with double lock joints and with one piece veneered wood bottoms mortised into drawer side all around. Large drawers are  $28\frac{1}{2}$  inches long,  $5\frac{1}{2}$  inches high by 16 inches deep. Small drawers are  $13\frac{3}{4}$  inches long,  $5\frac{1}{2}$  inches high and 16 inches deep.

**Equipment.** Each bench is furnished with two quick acting bench stops and two metal dogs. Two R-W No. 430-S-1 quick acting vises described on page 412, are also furnished. The vises are equipped with stop dogs.

### List Price

	Shipping Weight	List Price
No. 360-AA Bench without drawers, with two No. 430 Stop Visess	285 lbs.	\$48.00
No. 360-BB Bench with one drawer on each side, with two No. 430 Stop Visess	320 lbs.	55.00
No. 360-CC Bench with two drawers on each side, with two No. 430 Stop Visess	350 lbs.	60.00
No. 360-DD Bench with three large drawers on each side, with two No. 430 Stop Visess	430 lbs.	72.00
No. 360-EE Bench with one large and two small drawers on each side, with two No. 430 Stop Visess	370 lbs.	67.00
No. 360-FF Bench with one large and four small drawers on each side, with two No. 430 Stop Visess	450 lbs.	78.00

Discount.....



## R-W Loose Grindstones



We are prepared to furnish loose grindstones of any desired grit in any quantity. The stones are from the Berea district in Ohio and are the best known for general grinding.

All diameters and thicknesses. Furnished regular with straight face. Can furnish bevel face when desired. All stones cut with parallel sides, permitting same to be piled, requiring but minimum storage space.

Loose and mounted stones shipped in mixed cars either from quarry or from Aurora factory. Sold by the single stone, ton or carload.

Can also furnish Nova Scotia Grit if desired.

Prices quoted on application.

**Note**—Stones not crated unless so ordered, in which case we add actual cost of crating.

### Standard Table—Weights of Ohio Grindstones

All stones over 200 lbs. are sold by measurement weight; less than 200 lbs. by cut weight, which is actual weight on scales as they come from the lathe and is always cut on the stone.

#### Estimated Weight of Stone, 140 Pounds per Cubic Foot

DIAMETER		Weight of Stone One inch Thick	DIAMETER		Weight of Stone One inch Thick	DIAMETER		Weight of Stone One Inch Thick
Feet	Inches		Feet	Inches		Feet	Inches	
2	0	36.650	4	0	146.603	6	0	329.857
2	1	39.768	4	1	152.775	6	1	339.084
2	2	42.913	4	2	159.075	6	2	348.437
2	3	46.386	4	3	165.501	6	3	357.918
2	4	49.885	4	4	172.055	6	4	367.526
2	5	53.512	4	5	178.736	6	5	377.242
2	6	57.267	4	6	185.545	6	6	387.124
2	7	61.148	4	7	192.480	6	7	397.114
2	8	65.157	4	8	199.543	6	8	407.232
2	9	69.293	4	9	206.733	6	9	417.476
2	10	73.556	4	10	214.051	6	10	427.848
2	11	77.946	4	11	221.496	6	11	438.347
3	0	82.464	5	0	229.068	7	0	448.973
3	1	87.119	5	1	236.767	7	1	459.726
3	2	91.881	5	2	244.593	7	2	470.607
3	3	96.782	5	3	252.547	7	3	481.615
3	4	101.808	5	4	260.628	7	4	492.750
3	5	106.962	5	5	268.836	7	5	504.013
3	6	112.243	5	6	227.172	7	6	515.403
3	7	117.651	5	7	285.635	7	7	526.920
3	8	123.187	5	8	294.225	7	8	538.564
3	9	128.850	5	9	302.942	7	9	550.335
3	10	134.641	5	10	311.787	7	10	562.234
3	11	140.558	5	11	320.758	7	11	574.260

To find the weight of Ohio Grindstones, multiply the weight given in table by the thickness in inches.



## R-W No. 025 "King" Grindstone

Tubular Steel Frame



Patented

Tubular steel frame, slightly flexible, permitting same to adjust itself to uneven floors or surfaces. Easily set up. Frame is narrow at top, making it convenient to apply power. Spread at base, giving greater rigidity. Bi-treadle, with power properly applied.

Stone movable horizontally on frame to suit convenience of operator.

Ball-bearing journals and crank attachment. Fitted with detachable steel axle. Cranks are held on axle with our positive, patented nut locking device.

Seat made of steel, adjustable vertically 4 to 5 inches.

Made in one size and furnished with stone guaranteed best quality Berea grit for general grinding, 20 to 22 inches in diameter by 1 3/4 to 2 1/4 inches face.

Finish, red enamel with black trimmings.

Shipped knocked down, well crated, with stone protected. Shipping weight, 110 lbs.

### List Price

No. 025 Grindstone, complete. Each.....\$11.00

Discount.....

## R-W No. 400 "Victor" Grindstone

Tubular Steel Frame



Patented

Tubular steel frame, strong and rigid. Built on up-to-date mechanical principles. Bi-treadle with power properly applied.

Ball-bearing journals and crank attachment. Fitted with detachable steel axle. Cranks are held on axle with our positive, patented nut locking device.

Made in one size and furnished with stone guaranteed best quality Berea Grit for general grinding, 19 to 22 inches in diameter by 1 3/4 to 2 1/4 inches face.

Adjustable steel seat.

Finish, red enamel with black trimmings.

Shipped knocked down, well crated, with stone protected. Shipping weight, 100 lbs.

### List Price

No. 400 Grindstone, complete. Each.....\$9.75

Discount.....





Patented

## R-W No. 04 "Invader" Grindstone Tubular Steel Frame

Stones 20 to 22 inches diameter, 2 inches thick. Best quality Berea grit. Weight about 60 lbs. Tubular steel frame, well braced and rigid. Ball-bearing journals and crank journals. Journals protected from dust with shield. Heavy pressed steel seat adjustable to and from the stone to suit convenience of operator. Method of operating pedals requires minimum movement of knee.

Cranks fit tapered seats on axle and are held positively by our patented nut locking device.

Finish, red enamel with black trimmings.

Shipped knocked down and crated.

Shipping weight 120 lbs.

### List Price

No. 04 Invader Grindstone. Each.....\$11.00

Discount.....

## R-W No. 05 "Velox" Grindstone Angle Steel Frame

Angle steel frame, well braced, strong and rigid. No vibration, bi-treadle with power properly applied.

Ball-bearing journals and crank attachment. Fitted with detachable steel axle.

Made in one size and furnished with stone guaranteed best quality Berea grit for general grinding, 19 to 22 inches in diameter by 1¾ to 2¼ inches face.

Adjustable steel seat.

Finish, black enamel.

Shipped knocked down, well crated, with stone protected. Shipping weight, 95 lbs.

### List Price

No. 05 Grindstone, complete. Each.....\$9.00

Discount.....



Patented



## R-W No. 300 "Cycle" Grindstone Angle Steel Frame

Angle steel frame, strong and most rigid, on account of its peculiar construction. The legs are made of one piece angle steel and the upper frame is constructed to form a brace for the legs. No vibration, bi-treadle with power properly applied. Built on up-to-date mechanical principles.

Ball-bearing journals and crank attachment. Fitted with detachable steel axle. Cranks are held on axle with our positive, patented nut locking device.

Made in one size and furnished with stone guaranteed best quality Berea grit for general grinding, 19 to 22 inches in diameter by  $1\frac{3}{4}$  to  $2\frac{1}{4}$  inches face.

Adjustable steel seat.

Finish, red enamel with black trimmings.

Shipped knocked down, well crated, with stone protected. Shipping weight, 95 lbs.

### List Price

No. 300 Grindstone, complete. Each.....\$9.15

Discount.....



Patented



Patented

## R-W No. 00 "Western" Grindstone Angle Steel Frame

Angle steel frame, well braced, strong and rigid. Bi-treadle with power properly applied.

Ball-bearing journals and crank attachment. Fitted with detachable steel axle.

Made in one size and furnished with stone guaranteed best quality Berea grit for general grinding, 19 to 20 inches in diameter by  $1\frac{3}{4}$  to 2 inches face.

Adjustable steel seat.

Finish, black enamel.

Shipped knocked down, well crated, with stone protected. Shipping weight, 75 lbs.

### List Price

No. 00 Grindstone, complete. Each.....\$8.00

Discount.....



## R-W No. 410 "Challenge" Grindstone Angle Steel Frame

Angle steel frame, heavy, rigid and well braced. Steel legs are bolted to top bars.

Ball-bearing journals for axle and one ball-bearing treadle crank. Fitted with detachable steel axle. Cranks are held on axle with our positive, patented nut locking device.

Steel treadle rod and pedal. Hand crank furnished for opposite side.

Made in three sizes and furnished with stone guaranteed best Berea grit for general grinding. No. 1 size, 18 to 21 inches in diameter by  $1\frac{3}{4}$  to  $2\frac{1}{4}$  inches face; No. 2 size, 22 to 24 inches in diameter by  $1\frac{3}{4}$  to  $2\frac{1}{4}$  inches face; No. 3 size, 26 to 28 inches in diameter by  $1\frac{3}{4}$  to  $2\frac{1}{4}$  inches face.

Finish, red and black enamel.

Shipped knocked down, well crated, with stone protected. Shipping weight, No. 1, 100 lbs.; No. 2, 120 lbs.; No. 3, 135 lbs.



### List Price

No. 410-1 Grindstone, complete.	Each	\$7.95
No. 410-2 Grindstone, complete.	Each	8.40
No. 410-3 Grindstone, complete.	Each	9.15

Discount.....

## R-W No. 320—Kitchen Grindstones



### Description

Frame or trough, best grey iron, mounted on steel base. Furnished with ball-bearing journals for axle. Furnished with clamp for attaching to table. Hand-crank is detachable. Made in five sizes as shown below, stones carefully selected Berea Grit, rubbed finish and accurately centered. Finish, trough, red enamel; base, black enamel. Packed one-half dozen in box. Each stone wrapped in heavy paper to protect finish.

### List Price

Number and Size	Shipping Weight lbs.	Per Dozen
320- 8-inch.....	160	\$39.00
320- 9-inch.....	190	42.00
320-10-inch.....	210	45.00
320-11-inch.....	240	48.00
320-12-inch.....	280	51.00

Discount.....



## R-W No. 310 "Eli" Grindstone

Hardwood Frame  
Made in Three Sizes

Frame made of well seasoned hardwood, securely braced and bolted. Folds up into compact package for shipment. Bi-treadle with power properly applied.

Ball-bearing journals and crank attachments. Fitted with detachable steel axle. Cranks are held on axle with our positive, patented nut locking device.

Made in three sizes and furnished with stones guaranteed best Berea grit for general grinding. No. 1 size, 19 to 21 inches in diameter by  $1\frac{3}{4}$  to  $2\frac{1}{4}$  inches face; No. 2 size, 22 to 24 inches in diameter by 2 to  $2\frac{1}{2}$  inches; No. 3 size, 26 to 28 inches in diameter by 2 to  $2\frac{1}{2}$  inches.

Seat, steel, attached with screws.

Finish, red paint with black enamel trimmings.

Shipped knocked down, well crated, with stone protected. Shipping weight, No. 1, 105 lbs.; No. 2, 120 lbs.; No. 3, 135 lbs.



### List Price

No. 310-1 Grindstone, complete.	Each.....	\$ 8.70
No. 310-2 Grindstone, complete.	Each.....	9.50
No. 310-3 Grindstone, complete.	Each.....	10.30

Discount.....



## R-W No. 013 "Gentleman" Grindstone

Tubular Steel Legs

Tubular steel legs, attached to one piece grey iron water pan. Frame well braced and rigid. Water pan has drain cock.

Pedal is extra wide, permitting machine to be operated with one foot when standing or both feet when sitting. Counter-weighted crank, so it will not stop on dead centers.

Ball-bearing journals for axle with dust shields. Fitted with detachable steel axle.

Adjustable tool rest and drip tray, draining water back into water pan.

Made in one size and furnished with stone guaranteed best quality Berea grit for general grinding, 14 inches in diameter by  $1\frac{3}{4}$  inches face. Rubbed finish

Finish, black enamel, with gold bronze striping.

Shipped knocked down, well crated, with stone protected. Shipping weight, 70 lbs.

### List Price

No. 013 Grindstone, complete.	Each.....	\$13.50
-------------------------------	-----------	---------

Discount.....



R-W No. 015

## "Rural" Power Grindstone

Angle Iron Frame

Furnished with Foot Pedal when Desired

The frame is of  $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{3}{16}$ -inch angle iron, rigid and well braced. It stands  $27\frac{1}{2}$  inches high, 30 inches long and 19 inches wide on the floor.

Self-aligning bearings; shaft  $\frac{5}{8}$ -inch diameter. Berea grit stone, 22 inches by 2 inches. Pulley 12 inches by  $2\frac{3}{8}$  inches. We recommend that stone be run about 70 revolutions per minute for best results. (Prices quoted on other sizes of pulleys on application.)

Pulley, hand crank and drip cup regular.

Extras—Galvanized iron water pan with supporting rods, adjustable tool rest and drip tray, all-steel foot pedal, pedal rod and short crank.

Shipped K. D. and securely crated.

Finish, red, black trimmings. Weight, regular, 115 lbs.; complete, 127 lbs.

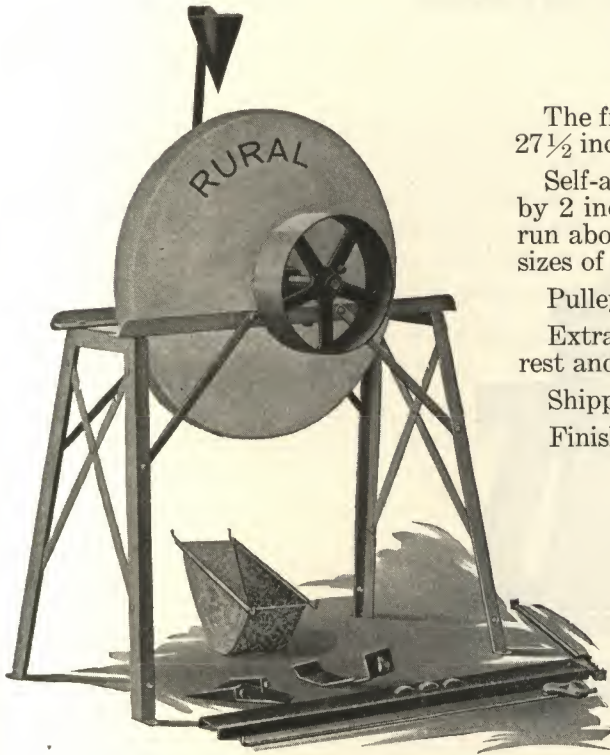
### List Price

No. 015 Power Grindstone, complete with all attachments.....	\$17.00
No. 015 Power Grindstone, regular with pulley, hand crank and drip cup, only.....	12.00

### Extra Parts

Galvanized Iron Water Trough.....	\$ 2.65
Foot Treadle and Attachments.....	1.30
Tool Rest.....	.55
Drip Tray.....	.55

Discount.....



R-W No. 07

## "Mogul" Power Grindstone

Angle Steel Frame

Furnished with Foot Pedal when Desired

Heavy steel angle frame, strongly braced. The stone stands 42 inches high, 32 inches long, 21 inches wide on the floor. One-piece grey iron water pan, from which the water can be drained by a pet cock provided for this purpose at the bottom. This overcomes the necessity of removing the water pan to drain off the water. It is necessary to drain off the water when the stone is not in use, for if the stone is allowed to stand in water any length of time, the submerged part becomes soft and wears away rapidly. This throws the stone out of true and prevents efficient grinding.

Furnished with adjustable tool rest, with drip tray, draining into water pan.

Ball-bearing journals for axle, which are dust and grit-proof. Fitted with detachable steel axle.

Steel treadle rod and steel treadle furnished only when ordered, and then at extra cost.

Hand crank furnished with each machine.

Made in one size and furnished with stone guaranteed best Berea Grit for farm or factory use. Size, 22 to 24 inches in diameter by  $\frac{1}{2}$  to 3 inches face.

Pulley, 12 inches diameter by 3 inches face, furnished with each machine. We recommend that stone be run about 70 revolutions per minute for best results.

Finish, red and black enamel.

Shipped frame knocked down, stone assembled to water pan, all crated with stone protected. Shipping weight, complete, 220 lbs.

### List Price

No. 07 Power Grindstone, without foot power attachment. Each.....	\$28.90
No. 07 Power Grindstone, with foot power attachment. Each.....	31.15

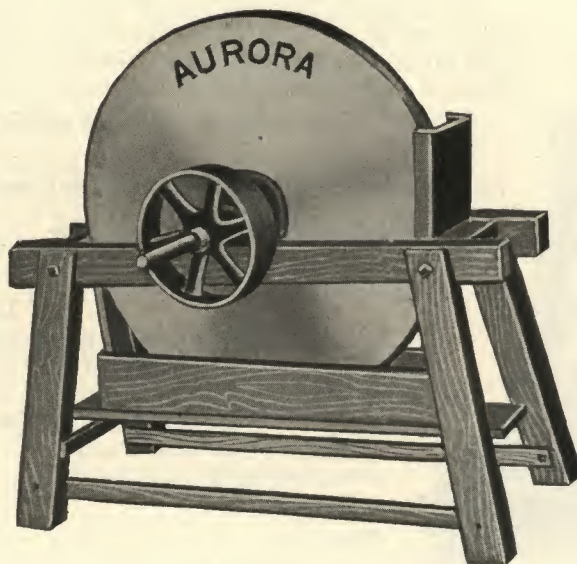
Note—Frames and stone sold separately when desired. Prices quoted on application.

Discount.....





## R-W No. 09 "Aurora" Power Grindstone Hardwood Frame



Made in Seven Sizes

Frame built of well-seasoned hardwood, strongly made and securely braced. Legs are bolted to top bar.

Water box is made of well-seasoned wood and is placed underneath the stone. Same can be removed to drain the water as the stone should not stand in water any length of time on account of the submerged parts becoming soft and wearing away rapidly. This throws the stone out of true and prevents efficient grinding.

Babbitted bearings for axle. Furnished with detachable steel axle, which permits shipping of centered stone separate from frame and still have the stone run true when the axle is replaced, without redressing the stone.

Made in seven sizes as shown in table below. Stone guaranteed best Berea Grit for factory and railroad use.

Pulley, on first size, No. 09-5, is 6 inches diameter by 3 inches face; on all other sizes regular pulley furnished is 12 inches diameter by 3 inches face. (We will substitute any required size, charging only the actual difference in price.)

Finish, red paint.

Shipped knocked down, frame bundled and stone crated.

Can be shipped set up, if desired.

### List Price

Catalog Number	Weight	Size of Stone	Complete with Pulley, Each
09-5.....	190 lbs.	24x3 inches	\$39.00
09-6.....	310 lbs.	30x4 inches	46.00
09-7.....	410 lbs.	36x4 inches	56.00
09-8.....	650 lbs.	42x5 inches	64.00
09-9.....	980 lbs.	48x6 inches	90.00
09-10.....	1450 lbs.	54x7 inches	115.00
09-11.....	2000 lbs.	60x8 inches	140.00

Discount.....

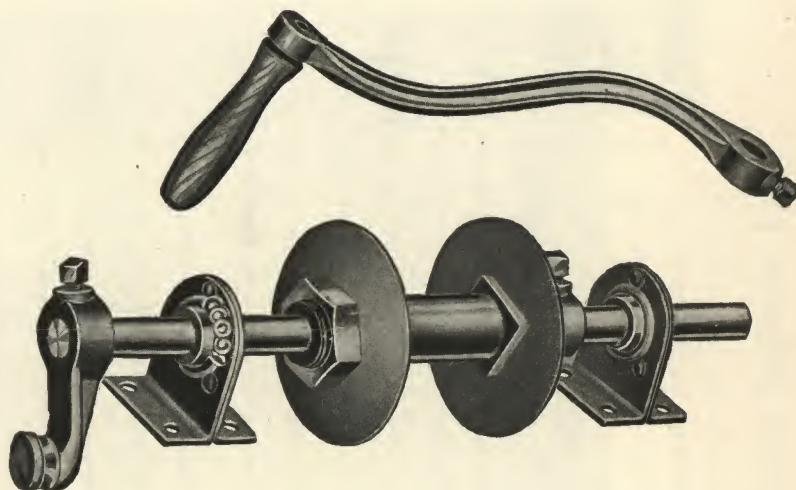


## R-W No. 01 Grindstone Fixtures

Made in one size. Ball-bearing journals. Journals adjustable on axle. Applicable to all ordinary frames. Sleeve for stone, adjustable on axle, and held in place with set screw. Steel axle, 12 inches long, will support stone, 18 to 20 inches diameter by 2 to 3 inches thick.

Finish, black japan. Packed one dozen sets in a box. Shipping weight, 85 lbs.

No. 01½ fixtures same as No. 01 except that two short cranks are furnished and hand crank is omitted.

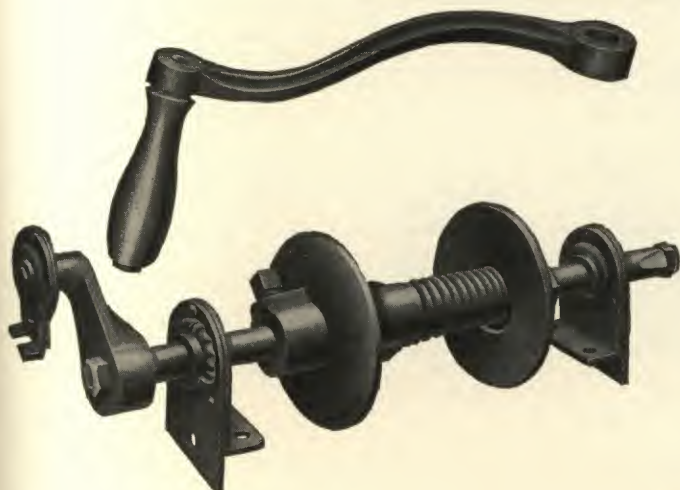


List Price

No. 01 Fixtures. Per dozen sets.....	\$20.25
No. 01½ Fixtures. Per dozen sets.....	20.25

Discount.....

## R-W No. 330 Ball-Bearing Grindstone Fixtures With Patented Nut Locking Device



These fixtures are the same as No. 01 shown above with the exception that both cranks are held on axle with our positive, patented nut locking device.

Ball-bearing journals also are of a different design, as shown above.

Furnished with ball-bearing short crank, instead of non-ball-bearing, as with No. 01.

Axle 8⅝ inches long.

Packed one dozen sets in a box. Shipping weight, 85 lbs.

List Price

No. 330 Grindstone Fixtures. Per dozen sets.....	\$21.75
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Discount.....



## Grindstone Repair List

### Pedal Rods

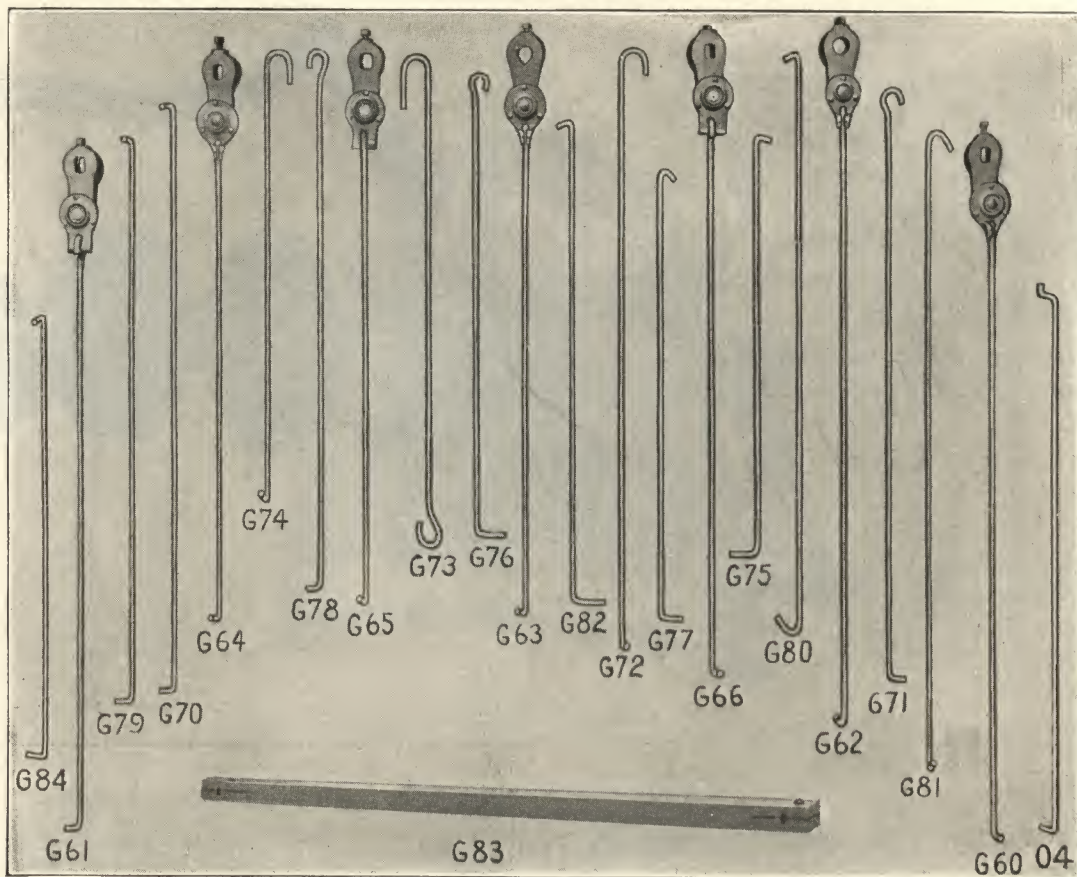


Fig. A-1978

### List Price

No.	DESCRIPTION	Subs.	Oz.	List Price Each
*G-60	G-70 Pedal rod, G-50 Pedal crank and G-111 Crank journal assembled, used with 05 old style . . . . .	G-43- 70		\$0.75
*G-61	G-71 Pedal rod, G-50 Pedal crank and G-112 Crank journal assembled, used with 05 old style . . . . .	G-43- 70		.75
*G-62	G-70 Pedal rod, G-51 Pedal crank and G-111 Crank journal assembled, used with 05 old style . . . . .	G-47- 70		.75
*G-63	G-77 Pedal rod, G-50 Pedal crank and G-111 Crank journal assembled, used with 011 old style . . . . .	G-47- 77		.75
*G-64	G-77 Pedal rod, G-50 Pedal crank and G-111 Crank journal assembled, used with 011 old style . . . . .	G-43- 77		.75
*G-65	G-76 Pedal rod, G-50 Pedal crank and G-112 Crank journal assembled, used with 011 old style . . . . .	G-43- 77		.75
*G-66	G-78 Pedal rod, G-50 Pedal crank and G-112 Crank journal assembled, used with 025 old style . . . . .	G-43- 79		.75
G-04	No. 04 Pedal Rod with single angle bend on one end and double angle bend on opposite end, length 23½ inches, used with 04 . . . . .		6	.37
G-70	No. 05 Pedal rod with two angle bends, length 24½ inches, used with 00, 05 . . . . .		6	.25
*G-71	No. 05 Pedal rod with one angle bend and one eye, length 24½ inches, used with 05 old style . . . . .	G-70-113	6	.25
G-72	No. 07 Pedal rod with one angle bend and one loop, length 25 inches, used with 07 . . . . .		6	.37
G-73	No. 08 Pedal rod with one loop and one eye, length 20½ inches, used with 08 . . . . .		5	.37
G-74	No. 010 Pedal rod with one angle bend and one loop, length 18¾ inches, used with 010 and old style No. 710 . . . . .		5	.25
G-75	No. 010 Pedal rod with two angle bends, length 17¼ inches, used with 010 old style . . . . .		5	.25
*G-76	No. 011 Pedal rod with one angle bend and one eye, length 19¾ inches, used with 011 old style . . . . .	G-77-113	5	.25
G-77	No. 011 Pedal rod with two angle bends, length 19¾ inches, used with 011, 014 . . . . .		5	.25
*G-78	No. 025 Pedal rod with one angle bend and one eye, length 23½ inches, used with 025 old style . . . . .	G-79-113	6	.25
G-79	No. 025 Pedal rod with two angle bends, length 23½ inches, used with 025 . . . . .		6	.25
G-80	No. 300 Pedal rod with one angle bend and one loop, length 23¾ inches, used with 300, 400 . . . . .		6	.25
G-81	No. 310 Pedal rod with one angle bend and one loop, length 26 inches, used with 310 . . . . .		7	.25
G-82	No. 410 Pedal rod with two angle bends, length 18¾ inches, used with 410 . . . . .		5	.25
G-83	No. 013 Pedal rod. Wood 1½x1½x32 inches, used with 013 . . . . .		7	.37
G-84	No. 710 Pedal rod (New Style) with one angle bend and one loop, length 17 inches, used with 710 New Style . . . . .		5	.25

\*This mark before a number indicates that the manufacture of that part has been discontinued and is replaced by numbers given in "substitute" column.

Note—Always specify by number and state catalog number of grindstone repairs are required for, also if old or new style.

Discount.....



## Grindstone Repair List (Contd.) Pedal Cranks and Pedal Crank Castings Only



Fig. A-1979



Fig. A-1980

No.	DESCRIPTION	Weight		List Price Each
		Lbs.	Oz.	
G-39	No. 04 Pedal crank with $\frac{3}{8}$ in. tapered hole, used with 04	...	14	\$0.50
G-40	No. 01 Pedal crank with set screw, with hole for $\frac{3}{8}$ in. axle, used with 01, 01 $\frac{1}{2}$ , 010, 015, 710	...	9	.25
G-41	No. 02 Pedal crank with set screw, with round hole for 1 in. axle, used with 02, 08	...	14	.50
G-42	No. 07 Pedal crank with set screw, with round hole for $\frac{3}{4}$ in. axle, used with 06, 07	...	16	.37
G-43	No. 05 Pedal crank with set screw (oblong hole) assembled with G-113 Crank journal, used with 05 old style	...	11	.50
*G-44	No. 05 Pedal crank with set screw (oblong hole) assembled with G-112 Crank journal, used with 05 old style	...	11	.50
*G-45	No. 05 Pedal crank with set screw (oblong hole) assembled with G-111 Crank journal, used with 05 old style	...	11	.50
†G-46	No. 300 Pedal crank with set screw, $\frac{3}{8}$ in. round hole, assembled with G-111 Crank journal, used with 300 old style	...	11	.50
G-47	No. 300 Pedal crank with set screw, $\frac{3}{8}$ in. round hole, assembled with G-113 Crank journal, used with 300 old style, 00, 05 (Also 011, 014, 025, 310, 330, 400 and 410 old style)	...	11	.50
G-48	No. 400 Pedal crank ( $\frac{3}{8}$ in. tapered hole) assembled with G-113 Crank journal, used with 011, 014, 025, 300, 310, 400, 410	...	11	.50
G-49	No. 013 Pedal crank with $\frac{3}{8}$ in. tapered hole, used with 013	1	8	.37
G-50	No. 05 Pedal crank casting with set screw and rivet (oblong hole), used with G-43	...	8	.12
G-51	No. 300 Pedal crank casting with set screw and rivet ( $\frac{3}{8}$ in. round hole), used with G-47	...	9	.12
G-52	No. 400 Pedal crank casting with rivet, no set screw ( $\frac{3}{8}$ in. tapered hole), used with G-48	...	8	.12
G-53	No. 04 Pedal crank casting with rivet, no set screw ( $\frac{3}{8}$ in. tapered hole), used with G-39	...	10	.12

\*Manufacture discontinued, substitute G-43.

†Manufacture discontinued, substitute G-47

Discount

### Hand Cranks

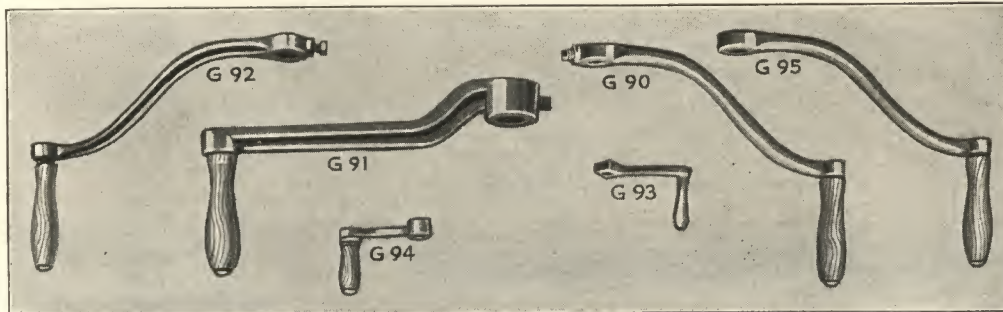


Fig. A-1981

No.	DESCRIPTION	Weight		List Price Each
		Lbs.	Oz.	
G-90	No. 01 Hand crank $\frac{3}{8}$ inch round hole and set screw, used with 01, 01 $\frac{1}{2}$ , 010, 330 old style	1	2	\$0.37
G-91	No. 02 Hand crank 1 inch round hole and set screw, used with 02, 08	2	14	.65
G-92	No. 07 Hand crank $\frac{3}{4}$ inch round hole and set screw, used with 06, 07	1	2	.50
G-93	No. 020 Hand crank square hole, used with W-020	...	4	.25
G-94	No. 320 Hand crank round tapered hole for $\frac{3}{8}$ inch diameter axle, used with 320	...	4	.25
G-95	No. 410 Hand crank tapered hole for $\frac{3}{8}$ inch diameter axle, no set screw, used with 710, 410	1	2	.37

### Seats

Discount

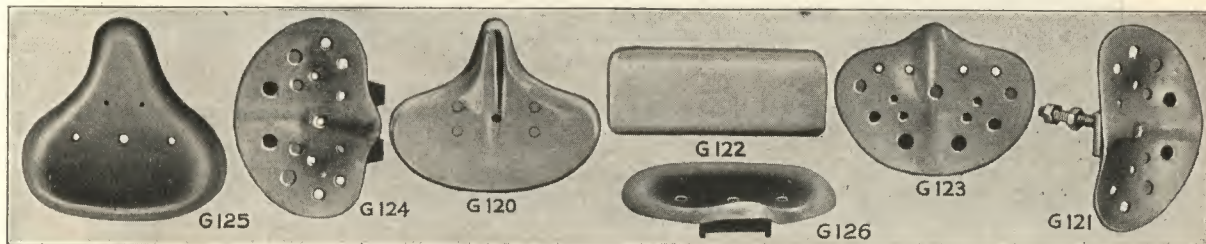


Fig. A-1982

No.	DESCRIPTION	Weight		List Price Each
		Lbs.	Oz.	
G-120	No. 05 Seat, Steel, used with 00, 05	1	...	\$0.50
G-121	No. 014 Seat, Steel, used with 014	3	2	.50
G-122	No. 025 Seat, Steel, used with 025	1	7	.50
G-123	No. 310 Seat, Steel, used with 011, 310	1	13	.50
G-124	No. 400 Seat, Steel, used with 300, 400	1	...	.50
G-125	No. 04 Seat, Steel, used with 04	1	2	.50
G-126	No. 300 Seat, Steel, used with 300, 400	1	6	.50

Note—Always specify by number and state catalog number of grindstone repairs are required for, also if old or new style.

Discount

**R-W Grindstone Seats are Built for Comfort**



# Richards-Wilcox

R-W

## Grindstone Repair List (Cont.)

### Sleeves and Washer Nuts

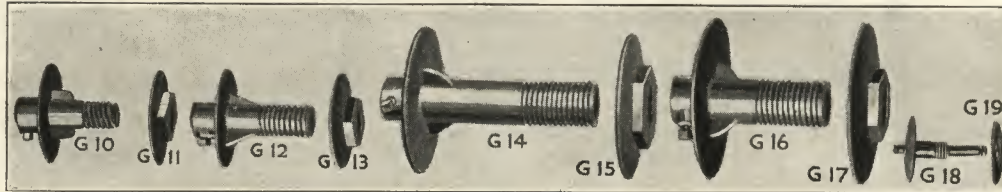


Fig. A-1983

No.	DESCRIPTION	Weight		List Price Each
		Lbs.	Oz.	
G-10	No. 013 Sleeve for stones 1 3/4 in. thick, bored for 3/8 in. round axle, used with 013.	1	5	\$0.37
G-11	No. 013 Washer nut to fit G-10, used with 013.			.25
G-12	No. 01 Sleeves for stones 1 1/2 in. to 2 1/2 in. thick, bored for 3/8 in. round axle, used with 00, 01, 01 1/2, 04, 05, 010, 011, 014, 025, 300, 310, 400, 410, 710.	1	8	.37
G-13	No. 01 Washer nut to fit G-12, used with 00, 01, 01 1/2, 04, 05, 010, 011, 014, 015, 025, 300, 310, 400, 410, 710.		14	.25
G-14	No. 02 Sleeve for stones 3 1/2 in. to 6 in. thick, bored for 1 in. round axle, used with 02, 08, 09.	5	11	.90
G-15	No. 02 Washer nut to fit G-14, used with 02, 08, 09.	3		.37
G-16	No. 07 Sleeve for stones 2 in. to 3 1/2 in. thick, bored for 3/4 in. round axle, used with 06, 07.	3	15	.74
G-17	No. 07 Washer nut to fit G-16, used with 06, 07.	2	7	.37
G-18	No. 320 Sleeve and axle with tapered end for Family Grindstone, used with 020, 320.		7	.37
G-19	No. 320 Washer nut to fit G-18, used with 020, 320.		2	.12

Discount.....

### Axles

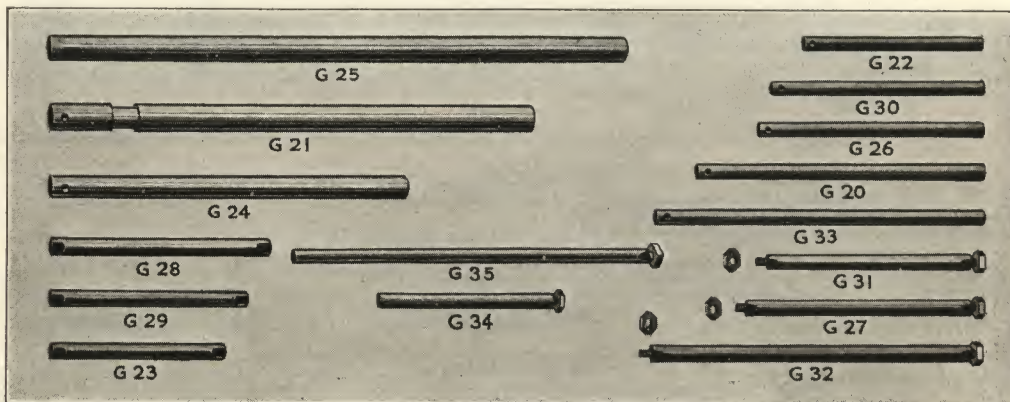


Fig. A-1984

No.	DESCRIPTION	Weight		List Price Each
		Lbs.	Oz.	
G-20	No. 01 Axle, 3/8 in. diameter x 12 in. long with spot for set screw in each end, used with 01, 01 1/2.	1		\$0.25
G-21	No. 02 Axle, 1 in. diameter x 20 in. long with spot for set screw in each end, used with 02, 08.	4	8	.62
G-22	No. 05 Axle, 3/8 in. diameter x 7 1/2 in. long with spot for set screw in each end, used with 00, 05.		11	.25
G-23	No. 05 Axle, 3/8 in. diameter x 7 1/2 in. long with flattened ends, used with 05 old style.		11	.25
G-24	No. 07 Axle, 3/8 in. diameter x 15 in. long with spot for set screw on one end, used with 06, 07.	1	14	.50
G-25	No. 09 Axle, 1 in. diameter x 24 in. long, used with 09.	5	8	.75
G-26	No. 010 Axle, 3/8 in. diameter x 9 1/4 in. long with spot for set screw in each end, used with 010 old style.		13	.25
G-27	No. 010 Axle, 3/8 in. diameter x 10 in. long with tapered ends and nuts, used with 010, 011, 014, 710.		15	.37
G-28	No. 011 Axle, 3/8 in. diameter x 9 1/4 in. long with flattened ends, used with 011 old style.		13	.25
G-29	No. 025 Axle, 3/8 in. diameter x 8 1/4 in. long with flattened ends, used with 025 old style.		12	.25
G-30	No. 300 Axle, 3/8 in. diameter x 8 3/8 in. long with spot for set screw in each end, used with 300 old style.		12	.25
G-31	No. 400 Axle, 3/8 in. diameter x 9 3/8 in. long with tapered ends and nuts, used with 04, 025, 300, 310, 400.		15	.37
G-32	No. 410 Axle, 3/8 in. diameter x 14 1/4 in. long with tapered ends and nuts, used with 410.	1	5	.37
G-33	No. 410 Axle, 3/8 in. diameter x 13 3/4 in. long with spot for set screw in each end, used with 410 old style.	1	3	.25
G-34	No. 013 Axle, 3/8 in. diameter x 6 3/4 in. long with tapered end and 1 nut, used with 013.		10	.25
G-35	No. 015 Axle, 3/8 in. diameter x 15 in. long with tapered end and 1 nut, used with 015.	1	4	.37

Note—Always specify by number and state catalog number of grindstone, repairs are required for, also if old or new style.

Discount.....



## R-W Grindstone Repair List (Cont.) Ball and Roller-Bearing Journals

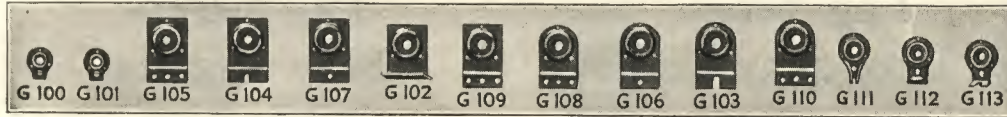


Fig. A-1985

### Heavy Bearing Parts

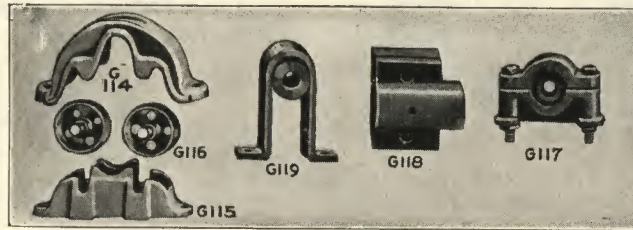


Fig. A-1986

Catalog No.	DESCRIPTION	Subs.	Weight Lbs. Oz.	List Price Each
G-100	No. 020 Journal for No. 020 Family Grindstone, used with W-020		1	\$0.25
G-101	No. 320 Journal for No. 320 Family Grindstone, used with 320		1	.25
G-102	No. 01 Ball bearing journal, for 5/8 in. diameter axle and wood grindstone frame, 01, 01 1/2, 010, 011, 014, 710		5	.50
*G-103	No. 05 Ball bearing journal, round top, for 5/8 in. diameter axle and steel frame, used with 05 old style	G-104	5	.50
G-104	No. 05 Ball bearing journal, square top, for 5/8 in. diameter axle and steel frame, used with 00, 05		5	.50
G-105	No. 025 Ball bearing journal, square top, for 5/8 in. diameter axle and steel frame, used with 025		5	.50
*G-106	No. 300 Ball bearing journal, round top, for 5/8 in. diameter axle and steel frame, used with 300 old style	G-107	5	.50
G-107	No. 300 Ball bearing journal, square top, for 5/8 in. diameter axle and steel frame, used with 04, 013, 300, 400, 410		5	.50
*G-108	No. 310 Ball bearing journal, round top, for 5/8 in. diameter axle and wood frames, used with 310 old style	G-109	5	.50
G-109	No. 310 Ball bearing journal, square top, for 5/8 in. diameter axle and wood frames, used with 310, 330		5	.50
G-110	No. 300 Roller bearing journal, for 5/8 in. diameter axle and steel frames, used with 025, 300, 400, 410		6	.50
*G-111	No. 05 Ball bearing crank journal, old style, used with 05 old style	G-113	3	.19
*G-112	No. 05 Ball bearing crank journal for hinged pedal rods, used with 05 old style	G-113	3	.19
G-113	No. 300 Ball bearing crank journal, used with 00, 04, 05, 025, 300, 310, 330, 400, 410		3	.19
G-114	No. 02 Bearing cover, used with 02, 08		1	.25
G-115	No. 02 Bearing base, used with 02, 08		1	.25
G-116	No. 02 Bearing roller wheel, used with 02, 08		8	.12
G-117	No. 07 Ball bearing, for power grindstones, used with 06, 07		2	1.25
G-18	No. 09 Babbitted bearing, used with 09		4	1.90
G-119	No. 015 Plain bearing, used with .015		14	.75

\*This mark before a number indicates that the manufacture of that part has been discontinued and is replaced by numbers given in "substitute" column.

### Miscellaneous

Discount.....

Fig. A-1987

No.	DESCRIPTION	Subs.	Weight Lbs. Oz.	List Price Each
*G-130	No. 025 Water can rod, round wire	G-131	5	\$0.25
G-131	No. 025 Water can rod, flat stock		8	.25
G-132	No. 300 Water can rod, flat stock, .015		9	.25
G-133	No. 310 Water can rod, round wire		8	.25
*G-134	No. 410 Water can rod, flat stock	G-131	8	.25
G-135	No. 320 Clamp for family grindstone		5	.25
G-136	No. 300 Water cup, .015		3 1/2	.25
G-137	No. 300 Journal shield		1	.12
G-138	No. 025 Leg clamp		5	.25
G-139	No. 025 Right hand tee joint, ptrn 296		1	.37
G-140	No. 025 Left hand tee joint, ptrn 297		1	.37

\*This mark before a number indicates that the manufacture of that part has been discontinued and is replaced by numbers given in "substitute" column.

Discount.....

Note—Always specify by number and state catalog number of grindstone that repairs are required for, also if old or new style.





## R-W No. 55 Lag Screw Barn Door Stay Rollers

**For Inside Doors Only**

Wheels, grey iron, 2 inches diameter. Lag screw,  $\frac{7}{16}$  inch diameter by 6 inches long. Finish, black japan. Packed in bulk. Weight, per hundred, 50 lbs.

**List Price**

No. 55 Stay Roller. Per hundred. . \$10.00

*Discount*.....

## R-W No. 835 Lag Screw Stay Rollers

Wheels, grey iron, 2 inches in diameter. Lag screw,  $\frac{3}{8}$  inch diameter by 3 inches long. Finish, black japan. Packed in bulk. Weight, per hundred, 37 lbs.

**List Price**

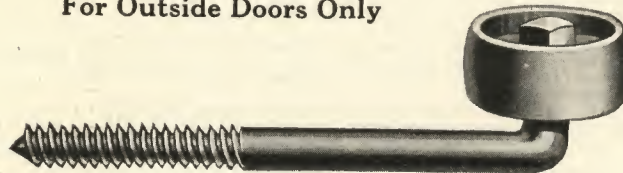
No. 835 Stay Roller. Per hundred. . \$8.50

*Discount*.....



## R-W No. 57 Lag Screw Barn Door Stay Rollers

**For Outside Doors Only**



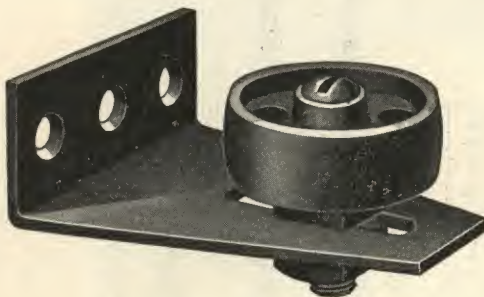
Wheels, grey iron, 2 inches diameter. Lag screw,  $\frac{1}{2}$  inch diameter by 8 inches long. Finish, black japan. Packed in bulk. Weight, per hundred, 60 lbs.

**List Price**

No. 57 Stay Roller. Per hundred..... \$10.00

*Discount*.....

## R-W No. 53 "Handy" Barn Door Stay Rollers



For inside and outside doors, from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  inches thick. Two stays in one as illustrated. Adjustable and reversible. Wheels, grey iron, 2 inches diameter. Steel frame. Finish, black japan. Packed in bulk. Weight, per hundred, 80 lbs.

**List Price**

No. 53 Stay Roller. Per hundred..... \$14.60

*Discount*.....



## R-W No. 58 "O. K." Barn Door Stay Rollers

Adjustable and reversible. Suitable for inside or outside doors, 1½ to 3 inches thick. Wheels, grey iron, 2 inches diameter. Steel frame. Finish, black japan. Packed in bulk. Weight, per hundred, 98 lbs.



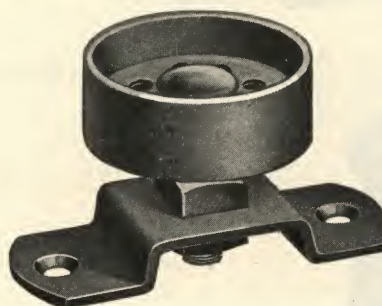
List Price

No. 58 Stay Roller. Per hundred.....\$14.60

Discount.....

## R-W No. 66 Barn Door Stay Rollers

For inside doors only. Can be fastened to concrete floors, with expansion bolts. Wheel, grey iron, No. 1 size, 2 inches diameter; No. 2 size, 3¼ inches diameter. Steel frame. Finish, black japan. Packed in bulk. Weight, per hundred, No. 1 size, 60 lbs.; No. 2 size, 173 lbs.



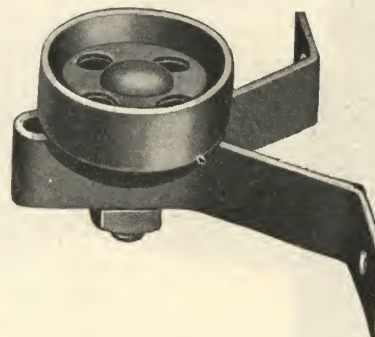
List Price

No. 66-1 Stay Roller. Per hundred.....\$15.00  
No. 66-2 Stay Roller. Per hundred.....37.50

Discount.....

## R-W No. 67 "Adjustable" Barn Door Stay Rollers

Adjustable for doors up to 2¼ inches thick. Wheel, grey iron, 2 inches diameter. Steel frame. Finish, black japan. Packed in bulk. Weight per hundred, 84 lbs.

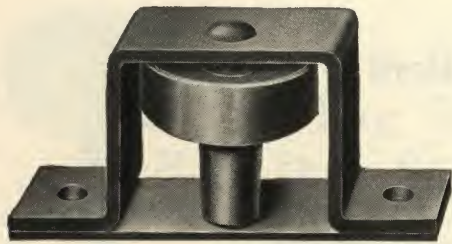


List Price

No. 67 Stay Roller. Per hundred.....\$15.00

Discount.....





**R-W No. 54**

## Barn Door Stay Rollers

Commonly used on inside sliding doors, where stay roller can be attached to floor. Wheel, grey iron,  $2\frac{1}{2}$  inches diameter and covered with steel frame. Finish, black japan. Packed one dozen in metal-edged box. Weight, per hundred, 221 lbs.

### List Price

No. 54 Stay Roller. Per hundred.....\$33.50

Discount.....



**R-W No. 68**

## Stay Rollers

### Adjustable and Reversible

Adjustable for doors up to 3 inches thick. Wheel, grey iron,  $2\frac{1}{2}$  inches diameter. Frame, heavy steel, 2 inches wide,  $7\frac{3}{4}$  inches high,  $\frac{1}{4}$  inch thick. Stay roller wheel stands  $4\frac{1}{2}$  inches high. Finish, black japan. Packed in bulk. Weight, per hundred, 333 lbs.

### List Price

No. 68 Stay Roller. Per hundred.....\$50.00

Discount.....



**R-W No. 60**

## Warehouse Door Stay Rollers

### Without Back Brace

This stay roller is the same as No. 59, illustrated below, with the exception that it is lower and back brace is removed. This type is frequently imbedded in concrete floors. Wheel, grey iron,  $3\frac{1}{4}$  inches diameter. Steel frame,  $2\frac{1}{4}$  inches wide,  $\frac{3}{16}$  inch thick,  $5\frac{3}{4}$  inches high. Finish, black japan. Packed in bulk. Weight, per hundred, 275 lbs.

### List Price

No. 60 Stay Roller. Per hundred.....\$50.00

Discount.....



**R-W No. 59**

## Warehouse Door Stay Rollers

### With Back Brace

Made extra high, to suit doors hung on inclined track. Suitable for use with warehouse and factory doors, also gates. Wheel, grey iron,  $3\frac{1}{4}$  inches diameter. Steel frame,  $2\frac{1}{4}$  inches wide,  $\frac{3}{16}$  inch thick,  $7\frac{1}{2}$  inches high. Finish black japan. Packed in bulk. Weight, per hundred, 417 lbs.

### List Price

No. 59 Stay Roller. Per hundred.....\$76.50

Discount.....



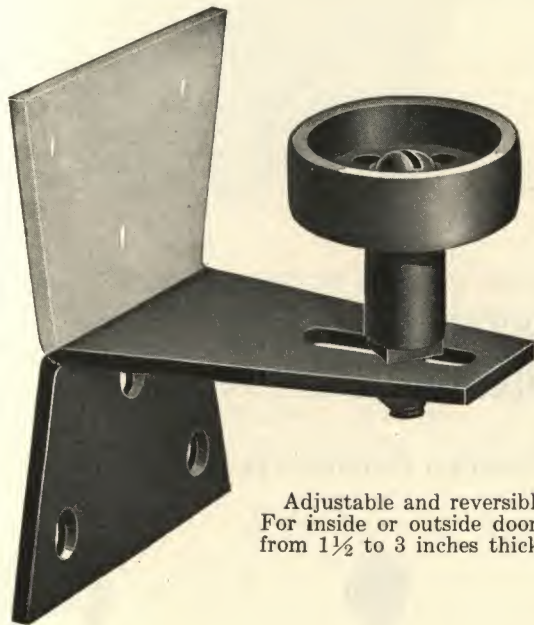
## R-W No. 151 "Safety" Stay Roller

For inside doors only. Made of grey iron. As shown in illustration, wheel is protected and cannot be broken. Wheel, grey iron, 2 inches diameter. Finish, black japan. Packed one dozen in metal-edged box. Weight, per hundred, 146 lbs.

### List Price

No. 151 Stay Roller. Per hundred.....\$33.50

Discount.....



Adjustable and reversible  
For inside or outside doors  
from 1½ to 3 inches thick.

## R-W No. 153 Warehouse Stay Roller

Wheel, grey iron, 2½ inches diameter. Steel frame. Finish, black japan. Packed in bulk. Weight per hundred, 217 lbs.

### List Price

No. 153 Stay Roller. Per hundred.....\$33.50

Discount.....

## R-W No. 154 Heavy Warehouse Stay Roller

Wheel, grey iron, 3½ inches diameter. Steel frame has screw holes slotted, providing a means for adjustment. Finish, black japan. Packed in bulk. Weight per hundred, 500 lbs.

### List Price

No. 154 Stay Roller. Each.....\$1.40

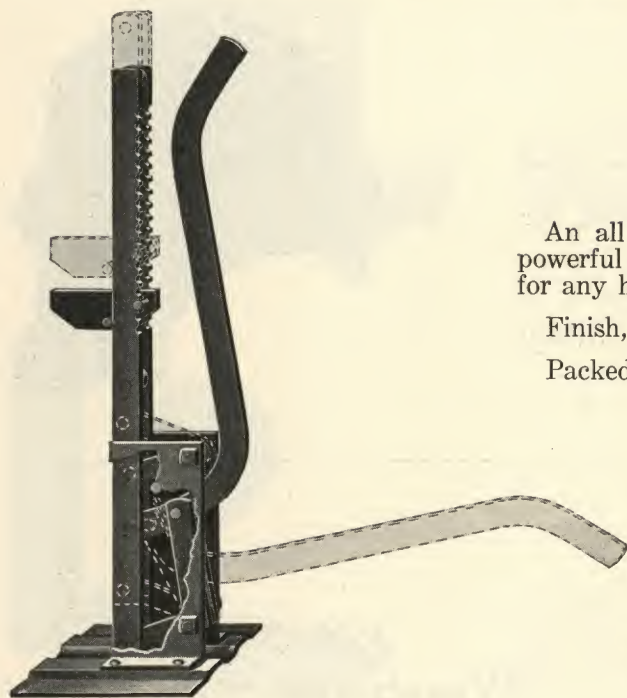
Discount.....



Especially designed for use  
with heavy Warehouse and  
Freighthouse doors.

Extra heavy construction.  
Wheel protected on all sides  
except door side with heavy  
steel frame.





## R-W No. 428 "Big Lift" Wagon Jack

An all steel jack. Made in four sizes. Operated by a combination of powerful double acting levers and toggles. Lifts  $2\frac{1}{4}$  inches. Adjusts quickly for any height axle. When the handle is down the jack is positively locked.

Finish, black japan.

Packed in one dozen and half dozen crates.

### List Price

Number	Capacity Lbs.	Range of Adjustment, in.	Each	
			Weight	Price
428-1.....	500	14 to $22\frac{1}{4}$	9 lbs.	\$1.40
428-2.....	1000	15 to 24	11 lbs.	1.90
428-3.....	1800	$16\frac{1}{2}$ to 25	17 lbs.	2.90
428-4.....	2500	$14\frac{1}{2}$ to 26	32 lbs.	6.25

Discount.....

## R-W Nos. 282, 382 and 482 Adjustable Malleable D's

Patented

For Shovels, Spading and Manure Fork Handles, Handled Ice Shaves, Etc.



No. 482



No. 382



No. 282



No. 282

Overcomes the old faulty ones that are always loose and cannot be tightened; have 3 inch strap ferrule. Adjustable to any size handle. No shoulders to trim down or any dressing to do. Can be kept tight, though wood shrinks. Is securely fastened on by two rivets. Easily removed, no burning or boring to do.

No. 282 has wood handle. No. 382 and 482 are all malleable. Inside dimensions: No. 282 and No. 382, width  $3\frac{7}{8}$  inches, depth  $1\frac{3}{4}$  inches; No. 482, width  $4\frac{1}{2}$  inches, depth  $2\frac{1}{8}$  inches.

Finish, black enamel. Packed  $\frac{1}{2}$  dozen in metal-edged box, with rivets. Weight, per hundred, No. 282, 77 lbs.; No. 382, 112 lbs.; No. 482, 160 lbs.

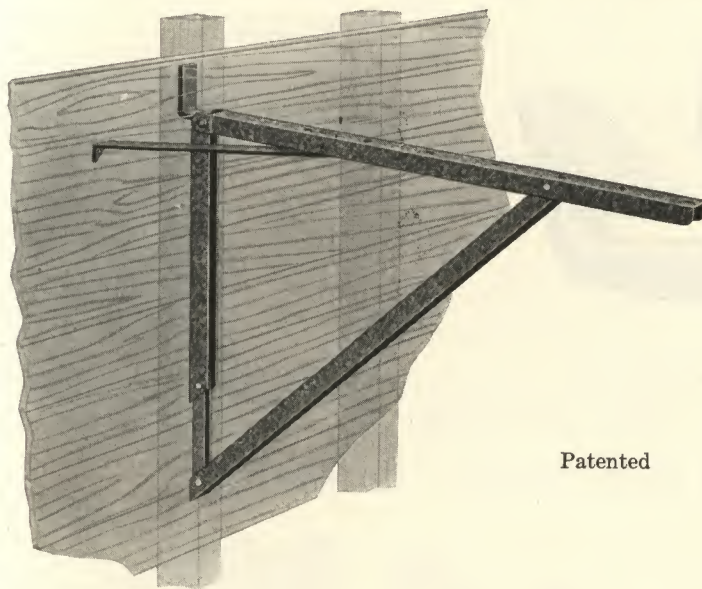
### List Price

No. 282 Malleable D. Per hundred.....	\$25.00
No. 382 All Malleable D. Per hundred.....	27.10
No. 482 All Malleable D's. Per hundred.....	37.50

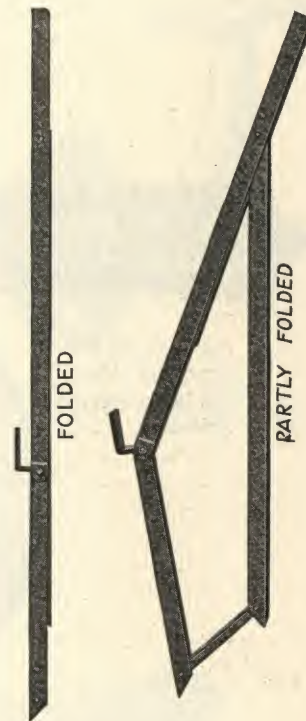
Discount.....



## R-W No. 261 Steel Folding Builders' Brackets



Patented



Provided with hook and tail nut for fastening bracket in studding, assuring positive safety. Sway brace prevents swinging motion of bracket when in use. Convenient for handling and requires small storage space. Strongly made and easily applied. These brackets cost no more than wood brackets and will last a lifetime. Save their cost on any job requiring two dozen or more brackets. Contractors are enthusiastic about them.

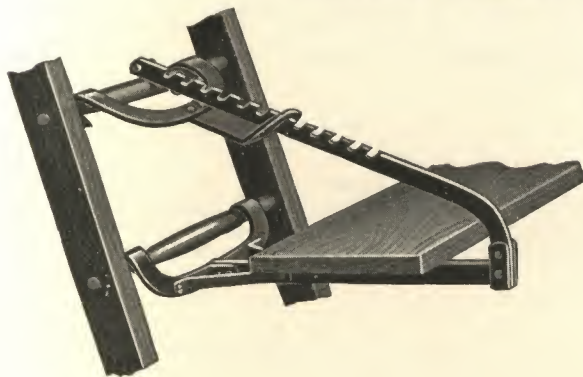
Made entirely of steel, in three sizes. No. 261-1, 3 feet long; No. 261-2, 4 feet long; No. 261-3, 5 feet long. All hinged joints securely riveted. Finish, galvanized. Packed one-half dozen in wood crate. Weight, each, No. 1 size, 13 lbs; No. 2 size, 14 lbs; No. 3 size, 29 lbs.

### List Price

No. 261-1 Builders' Brackets.	Each	.....	\$3.20
No. 261-2 Builders' Brackets.	Each	.....	3.75
No. 261-3 Builders' Brackets.	Each	.....	4.60

Discount.....

## R-W No. 138 Ladder Jack and Scaffold Support



This jack can be used inside or outside of any ladder, quickly adjusted to any pitch of ladder. With a pair of these jacks a strong and firm scaffold can be quickly arranged at any height and as close to building as desired. Easily applied, easily raised or lowered. A very practical device, and every carpenter, painter, trimmer and farmer ought to have a pair. Finish, black japan. Packed in bulk. Weight, per hundred pair, 3300 lbs.

### List Price

No. 138 Ladder Jacks.	Per pair	.....	\$3.75
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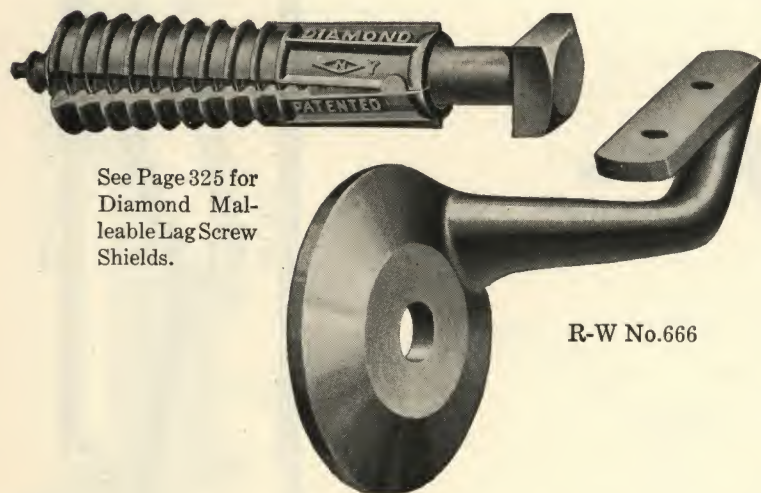
Discount.....



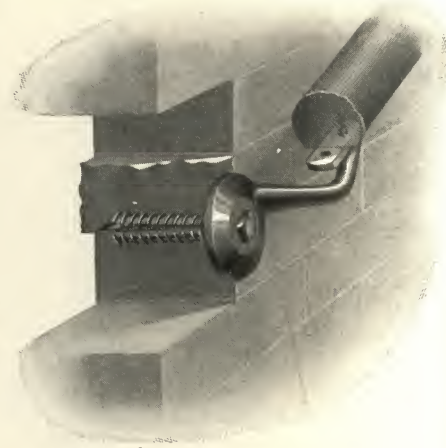
## "Holdtite" Hand-Rail Brackets

R-W No. 666 For Wood Railings

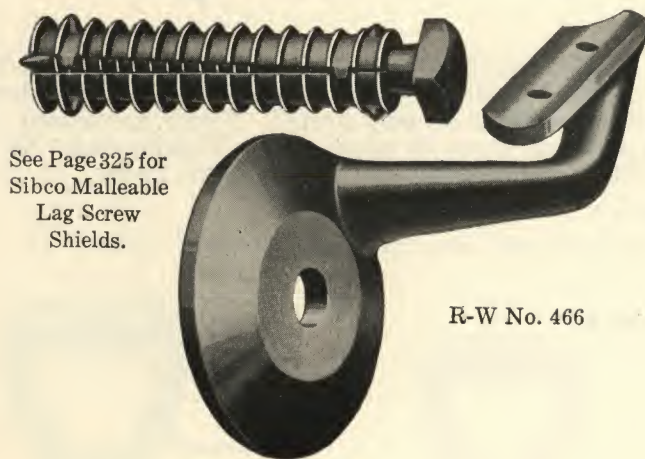
R-W No. 466 For Metal Pipe Railings



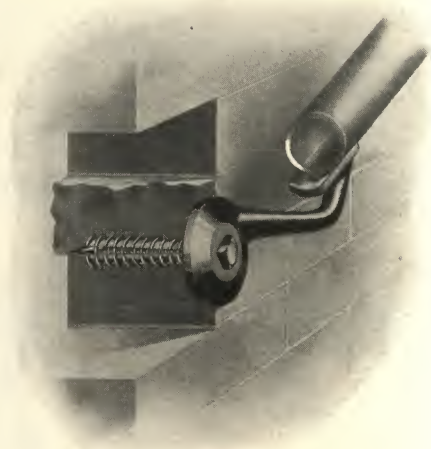
R-W No. 666



Showing application of No. 666 to wood railing



R-W No. 466



Showing application of No. 466 to metal pipe

Made of malleable iron. The 3-inch base assures a good bearing on the wall, and the bracket is securely held by  $\frac{1}{2}$  x 4 inch expansion bolt.

Head of lag screw finished to match bracket. The projection of the rail is 3 inches.

Packed 12 in a box with expansion bolts. Weight, malleable iron, per hundred, 119 lbs.; brass metal, 125 lbs.

No. 666 designed for wood railing. No. 466 for Metal Pipe Railing.

### List Price

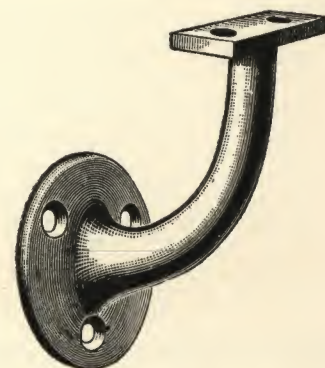
No. 666 or 466 Malleable Iron, black enamel finish regular. Each.....		\$ .47
No. 666 or 466 Malleable Iron, bronze plated. Each.....	Unpolished	Polished
No. 666 or 466 Malleable Iron, antique copper plated. Each.....	\$ .70	1.40
No. 666 or 466 Malleable Iron, lemon brass plated. Each.....	.70	1.40
No. 666 or 466 Malleable Iron, antique brass plated. Each.....	.70	1.40
	.70	1.40

Discount.....

**Note**—Finishes other than above, and solid brass or bronze metal, made up to special order. Prices quoted on application. When ordering be sure to state whether polished or unpolished finish is desired.



## R-W No. S-40 Hand-Rail Bracket For Wood Walls

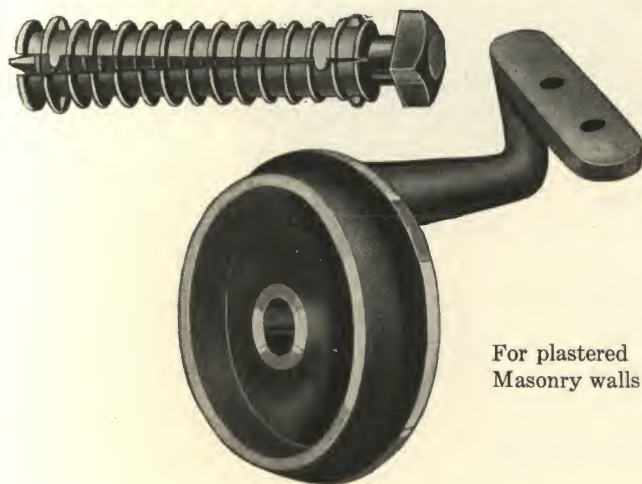


Finish	Finish
Black Enamel	Statuary Bronze
\$18.50	\$24.50

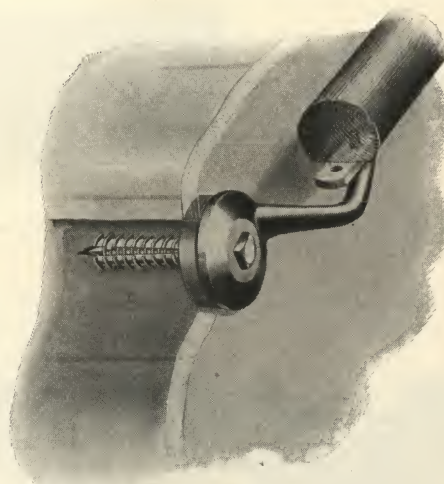
Discount.....

No. S-40 Hand Rail Bracket, per hundred .....

## R-W No. 766 "Holdtite" Hand-Rail Bracket



For plastered  
Masonry walls



Showing application of No. 766 Bracket  
to plastered masonry walls

This bracket is designed for use where it is desirable to have the bracket bear against the masonry walls instead of against the plaster.

Made of malleable iron. The flange is 3 inches in diameter with a boss  $\frac{3}{4}$  inch high, designed to extend through the plaster and rest on masonry or concrete walls. The

bracket is securely held by  $\frac{1}{2}$  x 4 inch expansion bolts. Head of lag screw furnished to match bracket. The projection of the rail from the plaster line is 3 inches.

Packed 12 in a box with expansion bolts. Weight, per hundred, malleable iron 141 lbs.; brass metal, 150 lbs.

Finishes, as shown below.

### List Price

No. 766 Hand Rail Bracket.	Finish, black enamel.	Each.....	\$ .58	
No. 766 Hand Rail Bracket.	Finish, bronze plated.	Each.....	Unpolished	Polished
No. 766 Hand Rail Bracket.	Finish, malleable iron, antique copper plated.	Each.....	\$ .82	\$1.50
No. 766 Hand Rail Bracket.	Finish, malleable iron, lemon brass plated.	Each.....	.82	1.50
No. 766 Hand Rail Bracket.	Finish, malleable iron, antique brass plated.	Each.....	.82	1.50

Discount.....

**Note**—Finishes other than above, and solid brass or bronze, made up special to order. Prices quoted on application. When ordering be sure to state whether polished or unpolished finish is desired.



## R-W No. 88 Door Binder and Stop



Patented

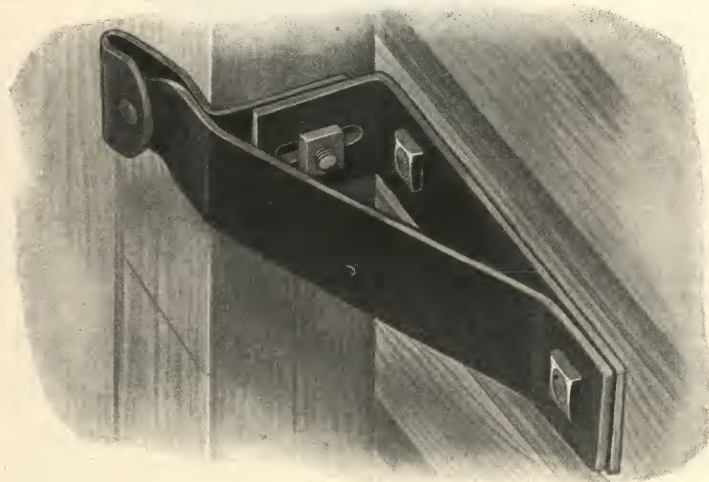
Made of two pieces steel,  $\frac{1}{8}$  inch thick by  $1\frac{3}{4}$  inches wide. Brace is pivoted, allowing first lag screw to be inserted easily. Made for doors  $1\frac{3}{4}$  inches thick. End is flared to readily receive the door. May be used at front

or back of door. Should be attached with  $\frac{7}{16}$  inch lag screws or bolts. Finish, black japan. Packed two in metal-edged box with screws. Weight, per hundred, 133 lbs.

### List Price

No. 88 Door Binder and Stop. Per hundred.....\$25.00

Discount.....



Patented

## R-W No. 89 Adjustable Door Binder and Stop

Made of three pieces steel, base  $\frac{3}{16}$  inch thick, brace  $\frac{1}{8}$  inch thick by  $1\frac{3}{4}$  inches wide. Adjustable for doors  $1\frac{3}{4}$  to 3 inches thick. Brace is pivoted, allowing first lag screw to be inserted easily. End is flared to readily receive

the door. May be used at front or back of door. Should be attached with  $\frac{7}{16}$  inch lag screws or bolts. Finish, black japan. Packed two in metal-edged box with screws. Weight, per hundred, 179 lbs.

### List Price

No. 89 Adjustable Door Binder and Stop. Per hundred.....\$40.00

Discount.....



# Richards-Wilcox

## R-W No. 69 Steel Bumper



Made of steel,  $\frac{1}{4}$  inch thick by 2 inches wide, and suitable for any size door. Finish, black japan. Packed in bulk. Weight, per hundred, 111 lbs.

### List Price

No. 69 Steel Bumper. Per hundred ..... \$20.00

Discount.....

## R-W No. 82 Steel Binder



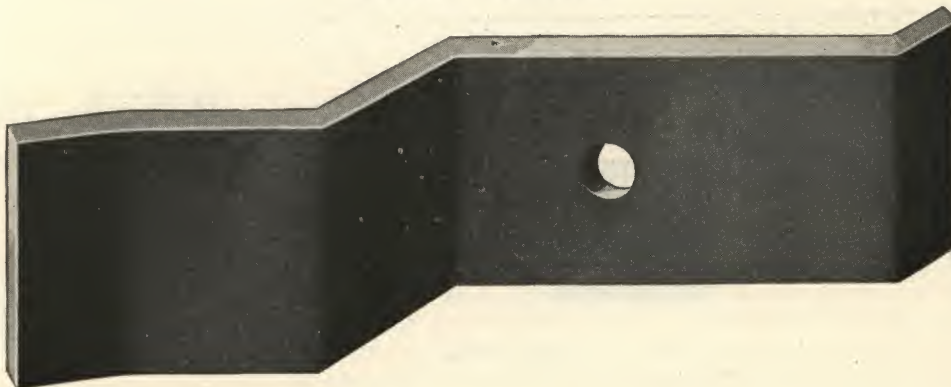
Made of steel,  $\frac{1}{4}$  inch thick by 2 inches wide, for seven thicknesses of doors. Finish, black japan. Packed in bulk. Average weight, per hundred, 166 lbs.

### List Price

No. 82-1 Steel Binder for $1\frac{1}{2}$ inch door.	Per hundred.....	\$25.85	No. 82-5 Steel Binder for $2\frac{1}{2}$ inch door.	Per hundred.....	\$28.35
No. 82-2 Steel Binder for $1\frac{3}{4}$ inch door.	Per hundred.....	25.85	No. 82-6 Steel Binder for $2\frac{3}{4}$ inch door.	Per hundred.....	28.35
No. 82-3 Steel Binder for 2 inch door.	Per hundred.....	27.10	No. 82-7 Steel Binder for 3 inch door.	Per hundred.....	30.00
No. 82-4 Steel Binder for $2\frac{1}{4}$ inch door.	Per hundred.....	27.10			

Discount.....

## R-W No. 104-95 Steel Binder



Made of steel,  $\frac{3}{8}$  inch thick by  $3\frac{1}{2}$  inches wide, in two sizes, for doors  $1\frac{3}{4}$  inches and  $2\frac{1}{2}$  inches thick. Finish, black japan. Packed in bulk. Average weight, per hundred, 500 lbs.

### List Price

No. 104-95-2 Steel Binder for $1\frac{3}{4}$ inch door.	Each.....	\$ .92
No. 104-95-3 Steel Binder for $2\frac{1}{2}$ inch door.	Each.....	.92

Discount.....





## R-W No. 72 Whole Bar Staple

Made of steel for six sizes of bars.  
Finish, black japan. Packed in bulk.

### List Price

Number.....	72-1	72-2	72-3	72-4	72-5	72-6
Size Bar.....	1 x2 in.	1 1/4 x 2 3/4 in.	1 3/4 x 3 1/4 in.	2 x4 in.	2 x4 in.	2 x4 in.
Size Steel.....	1 1/4 x 1/8 in.	1 3/8 x 1/8 in.	1 1/2 x 3/8 in.	1 1/4 x 1/4 in.	1 3/4 x 1/4 in.	1 1/2 x 3/8 in.
Weight, per hundred.....	31 lbs.	37 lbs.	99 lbs.	112 lbs.	156 lbs.	202 lbs.
Price, per hundred.....	\$11.70	\$13.35	\$15.85	\$20.00	\$21.70	\$26.70

Discount.....



## R-W No. 73 Half Bar Staple

Made of steel for six sizes of bars.  
Finish, black japan. Packed in bulk.

### List Price

Number.....	73-1	73-2	73-3	73-4	73-5	73-6
Size Bar.....	1 x2 in.	1 1/4 x 2 3/4 in.	1 3/4 x 3 1/4 in.	2 x4 in.	2 x4 in.	2 x4 in.
Size Steel.....	1 1/4 x 1/8 in.	1 3/8 x 1/8 in.	1 1/2 x 3/8 in.	1 1/4 x 1/4 in.	1 3/4 x 1/4 in.	1 1/2 x 3/8 in.
Weight, per hundred.....	31 lbs.	30 lbs.	64 lbs.	90 lbs.	121 lbs.	158 lbs.
Price, per hundred.....	\$10.00	\$12.50	\$14.60	\$18.35	\$20.85	\$25.00

Discount.....



## R-W No. 74 Steel Stake Pocket

Made of steel for 1 3/4 x 3 inch stakes.  
Furnished in three sizes of steel. Finish,  
black japan. Packed in bulk.

### List Price

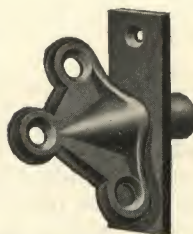
Number.....	74-0	74-1	74-2
Size Steel.....	1 1/2 x 3/8 in.	2 1/2 x 3/8 in.	2 1/2 x 1/4 in.
Weight, per 100.....	80 lbs.	125 lbs.	175 lbs.
Price, per 100.....	\$12.75	\$16.00	\$19.00

Discount.....



## R-W No. 177 Window Pivot

Made of grey iron and steel. Jamb plate measures  $1\frac{1}{4}$  x 3 inches. Black enamel finish. Packed one dozen pairs in paper box with screws. Weight, per hundred pairs, 100 lbs.



For Tilted Windows

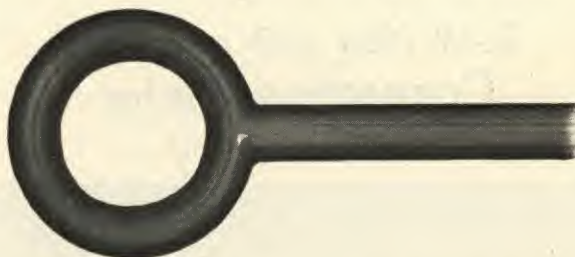


### List Price

No. 177 Window Pivots. Per hundred pairs.....\$30.00

Discount.....

## R-W No. 146 Drop Forged Eye Bolts



These eye bolts are drop forged, and furnished regularly without nuts and not threaded. Can be had threaded and with nuts if desired. Packed in bulk.

The figures given under the heading "Length under Eye", are the maximum, but any length shorter than listed can be furnished.

### List Price

Catalog No.	Size of Stock	Inside Diameter of Eye	Length Under Eye	List Price Regular per Hundred	Weight per Hundred	List Price Threaded, with Nuts, per Hundred	Weight per Hundred
146	$\frac{1}{2}$ in.	$1\frac{1}{2}$ in.	$4\frac{1}{2}$ in.	\$36.00	57 lbs.	\$42.00	$62\frac{1}{2}$ lbs.
146	$\frac{5}{8}$ in.	$1\frac{1}{2}$ in.	4 in.	57.00	$92\frac{1}{2}$ lbs.	68.00	$102\frac{1}{2}$ lbs.
146	$\frac{3}{4}$ in.	$1\frac{3}{4}$ in.	$3\frac{3}{8}$ in.	72.00	$127\frac{1}{2}$ lbs.	84.00	145 lbs.

Discount.....

## R-W No. 139 Padlock Plates

Padlock plates designed especially for use on garage doors, but may also be used on barn or warehouse doors. Adapted to either sliding or swinging doors. One plate is mortised into the edge of door, and the other into the jamb.

Made of No. 11 Ga. ( $\frac{1}{8}$ " ) stock,  $2\frac{1}{4}$  inches high. Screw holes are counter-sunk. Black enamel finish. Packed one pair in envelope including screws. Weight, per hundred pair, 25 lbs.



### List Price

No. 139 Padlock Plates, per hundred pair.....\$30.00

Discount.....



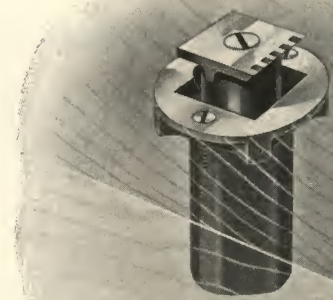
## R-W No. 360 Bench Stop

Made of malleable iron. Quick adjusting. To raise the stop all that is necessary is to turn the screw in the center and lift to the desired position. The clamp at the lower end of the screw binds the stop securely in place. To lower the stop, reverse the process and it will then drop back into place. Finish, black enamel. Weight, per hundred, 133 lbs. Packed  $\frac{1}{2}$  dozen with screws in metal edged box.

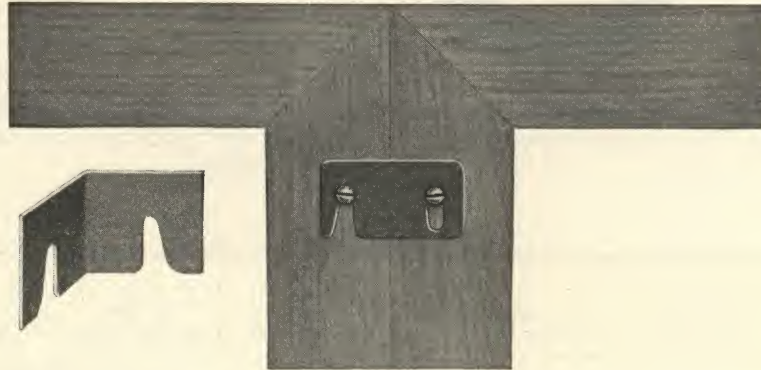
### List Price

No. 360 Bench Stop. Each.....\$1.20

Discount.....



## R-W Nos. 193 and 293 Connecting Plates



No. 193 Flat for Plain Surfaces  
No. 293 Right Angle for Corners

These plates are especially adapted for coupling screens, sash, partitions, etc., holding them securely in position at joints. Slots are tapered, which allows for drawing sections tight before screws are locked.

To disconnect, it is necessary to loosen only one screw and plates can be left attached to section.

Used to join screen sections together, porch screens, summer cottages, sleeping porches, etc.

Size,  $1\frac{1}{4}$  inches by  $21\frac{1}{4}$  inches. Finish, black enamel.

Packed one gross in carton with screws.

Weight, per hundred,  $4\frac{3}{4}$  lbs.

### List Price

No. 193 Connecting Plates.	Per hundred.....	\$1.75
No. 293 Connecting Plates.	Per hundred.....	2.00

Discount.....



## R-W No. 77 Wrought Steel Corner Irons

Made of wrought steel. Finish, natural; wired in dozen lots or packed one dozen in metal-edged box at slight increase in price.



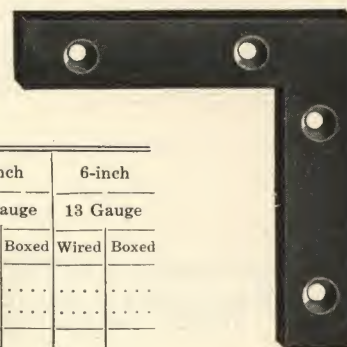
List Price

Length of Sides Inches	Width Inches	Thickness, Inches	Weight per Hundred Lbs.	Price per Hundred	
				Wired	Boxed
1 1½	1½ 1½	1/8 1/8	4 6	\$2.20 2.70	\$ 2.50 3.00
2 2½	5/8 5/8	1/8 3/16	10 16	3.10 3.75	3.45 4.10
3 3½	3/4 3/4	3/16 3/16	20 30	4.70 5.50	5.00 6.00
4 5	7/8 7/8	3/16 3/16	34 42	6.70 10.45	7.10 11.25
6 8	1 1/8 1 1/4	3/16 1/4	68 144	13.35 20.00	14.20 20.85

Discount.....

## R-W No. 78 Wrought Steel Flat Corner Irons

Made of wrought steel. Finish, natural; wired in dozen lots or packed two dozen in metal-edged box at a slight increase in price.



List Price

Length of Sides		1½-inch		2-inch		2½-inch		3-inch		3½-inch		4-inch		5-inch		6-inch	
Thickness		16 Gauge		16 Gauge		16 Gauge		14 Gauge		14 Gauge		14 Gauge		13 Gauge		13 Gauge	
Width	Price	Wired	Boxed	Wired	Boxed	Wired	Boxed	Wired	Boxed	Wired	Boxed	Wired	Boxed	Wired	Boxed	Wired	Boxed
3/8-in.	Per Hundred	1.25	1.45	1.35	1.60	1.45	1.70	1.50	1.85	1.70	2.00	.....	.....	.....	.....	.....	.....
1/2-in.	Per Hundred	.....	.....	.....	.....	1.70	1.95	1.75	2.10	1.85	2.25	.....	.....	.....	.....	.....	.....
5/8-in.	Per Hundred	.....	.....	.....	.....	.....	.....	2.00	2.35	2.25	2.50	2.35	2.70	.....	.....	.....	.....
3/4-in.	Per Hundred	.....	.....	.....	.....	.....	.....	.....	.....	2.45	2.75	2.70	3.00	.....	.....	.....	.....
7/8-in.	Per Hundred	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.10	3.50	3.50	4.00	3.75	4.25
1-in.	Per Hundred	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.50	4.00	4.25	4.70

Discount.....



## R-W No. 79 Wrought Steel Mending Plates

Made of wrought steel. Finish, natural; wired in dozen lots or packed two dozen in metal-edged box at a slight increase in price.

List Price

Length, Inches	Width Inches	Thickness, Inches	Weight per Hundred Lbs.	Price per Hundred	
				Wired	Boxed
2 2½	3/4 3/4	1/8 1/8	5 6	\$2.20 2.50	\$2.50 2.85
3 3½	3/4 3/4	1/8 1/8	7 8	2.95 3.10	3.10 3.35
4 5	7/8 7/8	1/8 1/8	11 14	3.35 3.95	3.70 4.25
6 8	1 1/8 1 1/4	1/8 3/16	16 40	4.45 5.50	4.85 6.00

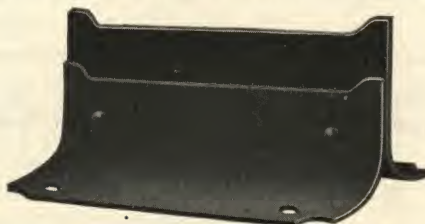
Note—Unless otherwise specified, Nos. 77, 78 and 79 will be sent wired in dozen lots.

Discount.....

*If you'll display Corner Irons and Mending Plates you'll sell lots more of them*



## R-W No. 110 Steel Foot Scraper



Made of two pieces of steel, securely riveted together. Can be attached with screws or bolts to sidewalk or porch steps. Scraper,  $5\frac{3}{4}$  inches wide,  $2\frac{1}{2}$  inches high. Finish, black japan. Packed one dozen in metal edged box. Weight per hundred, 67 pounds.

### List Price

No. 110 Foot Scraper. Per hundred.....\$12.50

Discount.....

## R-W No. 111 Steel Foot Scraper



Designed especially to meet the demand for a low price foot-scraper. Made of one piece of steel. Can be attached with screws or bolts to sidewalk or porch steps. Scraper,  $5\frac{3}{4}$  inches long, 2 inches high. Finish, black japan. Packed in bulk. Weight, per hundred, 30 lbs.

### List Price

No. 111 Foot Scraper. Per hundred.....\$10.00

Discount.....

## R-W No. 195 Steel Foot Scraper



Patented

Made entirely of steel and in one piece. Strong, rigid and durable. Can be attached with screws or bolts to sidewalk or porch steps. Scraper, 6 inches wide, 2 inches high. Finish, black japan. Packed one dozen in metal-edged box. Weight, per hundred, 36 lbs.

### List Price

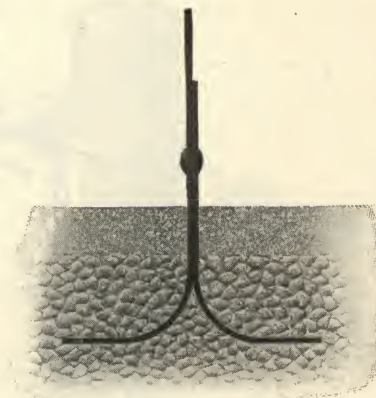
No. 195 Foot Scraper. Per hundred.....\$10.20

Discount.....



## R-W No. 210 Steel Foot Scraper

For Concrete Walks or Steps



Showing Foot Scraper Imbedded

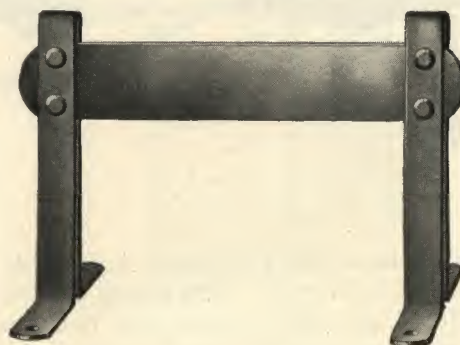
Designed to meet the demand for foot scraper that can be imbedded in concrete. Made of two pieces of steel, securely riveted together. Strong and durable. Holes in scraper allow for binding contact of concrete while setting. Scraper,  $5\frac{3}{4}$  inches wide,  $4\frac{3}{4}$  inches high. Finish, black japan. Packed one dozen in metal-edged box. Weight, per hundred, 98 lbs.

### List Price

No. 210 Foot Scraper. Per hundred.....\$16.50

Discount.....

## R-W No. 211 Steel Foot Scraper



Designed for public buildings. Made of three pieces of steel, securely riveted together. Scraper bar made from  $\frac{3}{16}$  x  $1\frac{1}{2}$  inch steel, uprights from  $\frac{3}{16}$  x  $\frac{3}{4}$  inch steel. Intended to be imbedded in cement, but can be bolted to sidewalk or porch steps, if desired. Scraper,  $8\frac{1}{2}$  inches long,  $5\frac{1}{2}$  inches high. Finish, black japan. Packed in bulk. Weight, per hundred, 175 lbs.

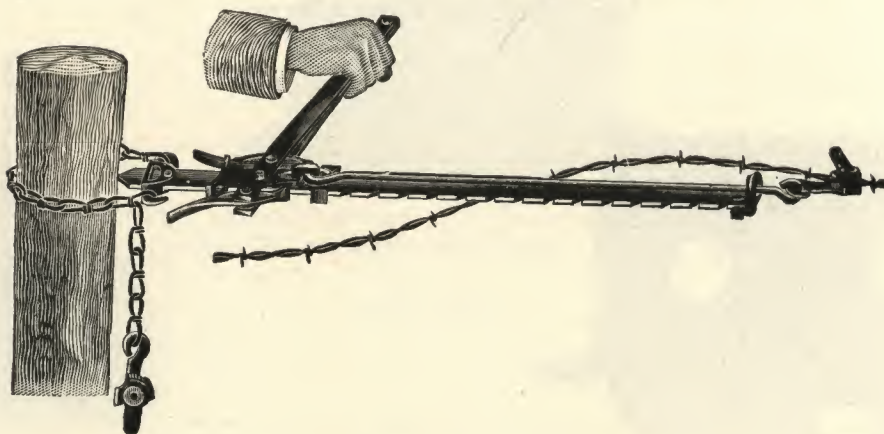
### List Price

No. 211 Foot Scraper. Per hundred.....\$40.00

Discount.....



## R-W No. 234<sup>1</sup>/<sub>4</sub> "Ellwood" Wire Stretcher



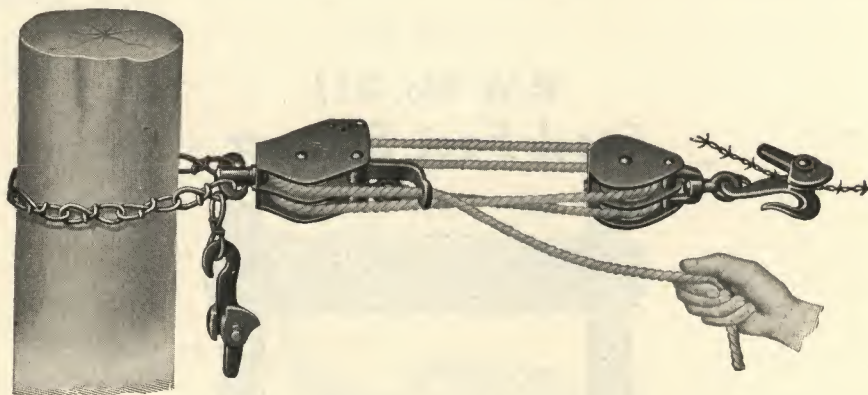
Made of malleable iron and steel. Finish, natural. Wired one-half dozen in a bundle. Weight, per hundred, 555 lbs

### List Price

No. 234<sup>1</sup>/<sub>4</sub>, Wire Stretcher. Each.....\$1.10

Discount.....

## R-W No. 340 Tackle Block and Wire Stretcher



Made of malleable iron with one-piece steel housing for pulleys. Adjustable automatic lock or clamp disengaged by slight movement of hand rope. Swivel hook at both ends. Wire clamp at both ends.

No. 340R-2 has roller bearings. Nos. 340P-1 and 340P-2 have plain bearings.

No. 340P-1 packed with 16<sup>1</sup>/<sub>2</sub> feet of <sup>3</sup>/<sub>8</sub> inch rope and 28 inches of chain. No. 340P-2 or 340R-2, packed with 20 feet of <sup>1</sup>/<sub>2</sub> inch rope and 34 inches of chain.

Finish, red enamel.

Weight, No. 340P-1, per hundred, 458 lbs.; Nos. 340R-2 and 340P-2, per hundred, 658 lbs.

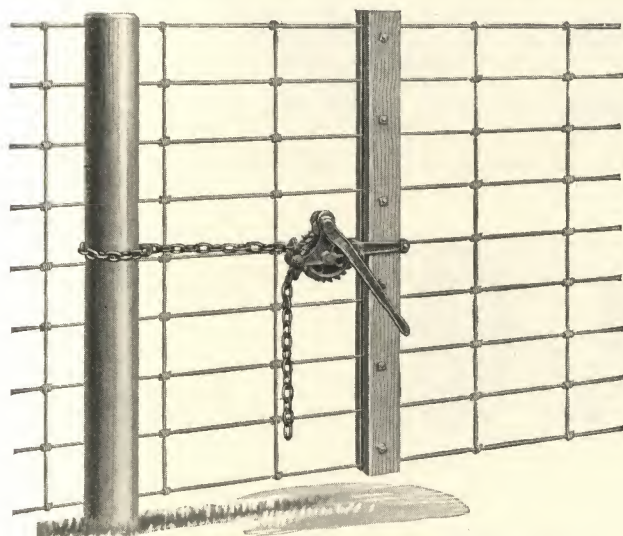
### List Price

No. 340P-1 Tackle Block and Wire Stretcher.	Each.....	\$1.90
No. 340P-2 Tackle Block and Wire Stretcher.	Each.....	2.50
No. 340R-2 Tackle Block and Wire Stretcher.	Each.....	2.95

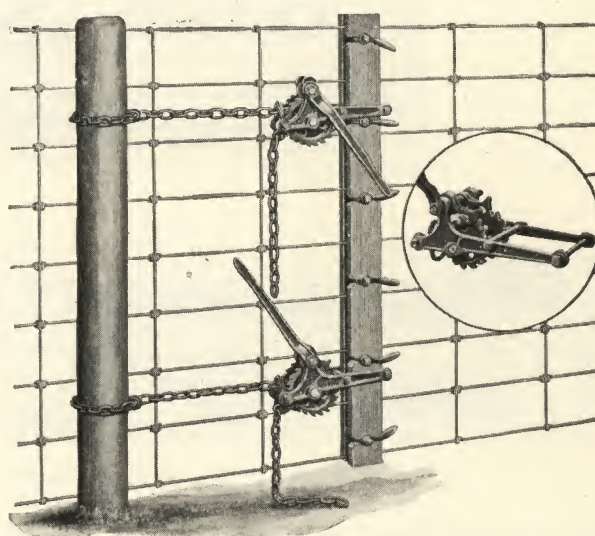
Discount.....



## R-W No. 731 Fence Stretcher and Hoist and R-W No. 331, No. 731, No. 385 Clamps



No. 731 Regular Clamp with No. 731 Fence Stretcher



No. 331 Clamp with two No. 731 Fence Stretchers

**No. 731 Fence Stretcher**—Made of malleable iron. Pawls have hardened roller bearings and are operated by crank shaft. The lever handle can be operated continuously in one direction or backward and forward. Can be operated from either side of fence.

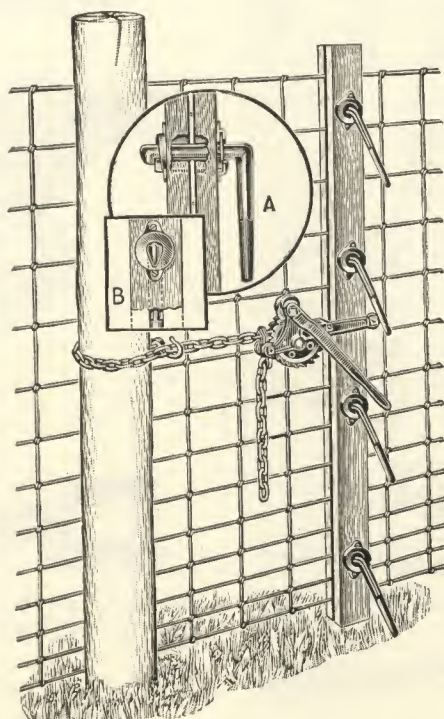
Can be used for pulling stumps, as a hoist when skinning beef, lifting a sick horse, pulling pipe from pumps, lifting heavy wagon boxes, etc.

In stretching heavy fence, it is sometimes desirable to use two stretchers, one near the bottom and the other near the top of the fence as illustrated. Finished red enamel. Packed with 8 feet BB Proof Tested Steel Chain with grab hook.

One No. 731 Regular Clamp furnished with each stretcher.

### No. 731 Regular Clamp

Made of well seasoned hardwood. Equipped with regular bolts and nuts.



No. 385 Quick Acting Clamp with No. 731 Fence Stretchers

### No. 331 Clamp

Made of well seasoned hardwood. Equipped with bolts and tail nuts, making the use of a wrench unnecessary.

### No. 385 Quick Acting Clamp

We recommend the use of the No. 385 Quick Acting Clamp, as illustrated below.

No. 385 Quick Acting Clamp is made from selected, well-seasoned hardwood. Each clamp is equipped with four malleable iron tighteners. A flat steel strip is attached on the inside face of one wood clamp side and two half oval steel strips are attached to the other wood clamp side, which gives same secure grip on the wire fencing. The tighteners can be attached and detached in an instant, no wrench being required.

### Weights

No. 731 Fence Stretcher.....	27	lbs.
No. 731 Regular Clamp.....	11	lbs.
No. 331 Clamp.....	18½	lbs.
No. 385 Quick Acting Clamp.....	29	lbs.

### List Price

No. 731 Fence Stretcher, with one No. 731 Regular Clamp. Complete.....	\$ 7.50
No. 731 Fence Stretcher, with one No. 331 Clamp. Complete.....	9.00
No. 731 Fence Stretcher, with one No. 385 Clamp. Complete.....	11.00
No. 731 Regular Clamp only. Each.....	1.60
No. 331 Clamp only. Each.....	3.50
No. 385 Quick Acting Clamp only. Each.....	4.75
Two No. 731 Fence Stretchers with one No. 731 Clamp.....	12.60
Two No. 731 Stretchers with one No. 331 Clamp. Complete.....	14.00
Two No. 731 Stretchers with one No. 385 Clamp. Complete.....	16.25

Note—Unless otherwise specified, fence stretcher with No. 731 Regular Clamp will be sent.

Discount.....



## R-W Repair List for Fence and Wire Stretcher Parts

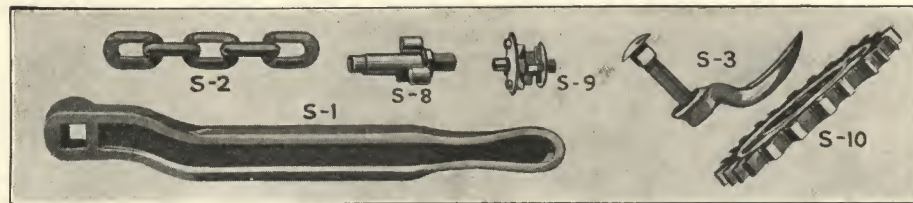


Fig. A-1988—Parts for No. 531

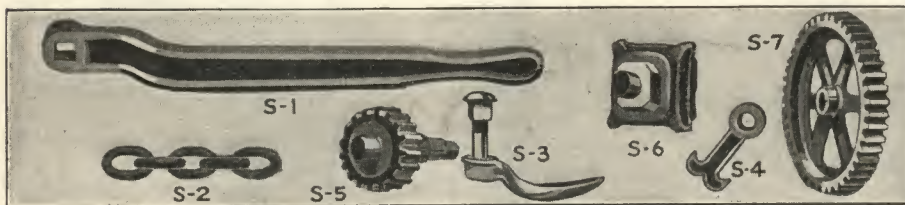


Fig. A-1989—Parts for No. 331

### Parts for No. 731

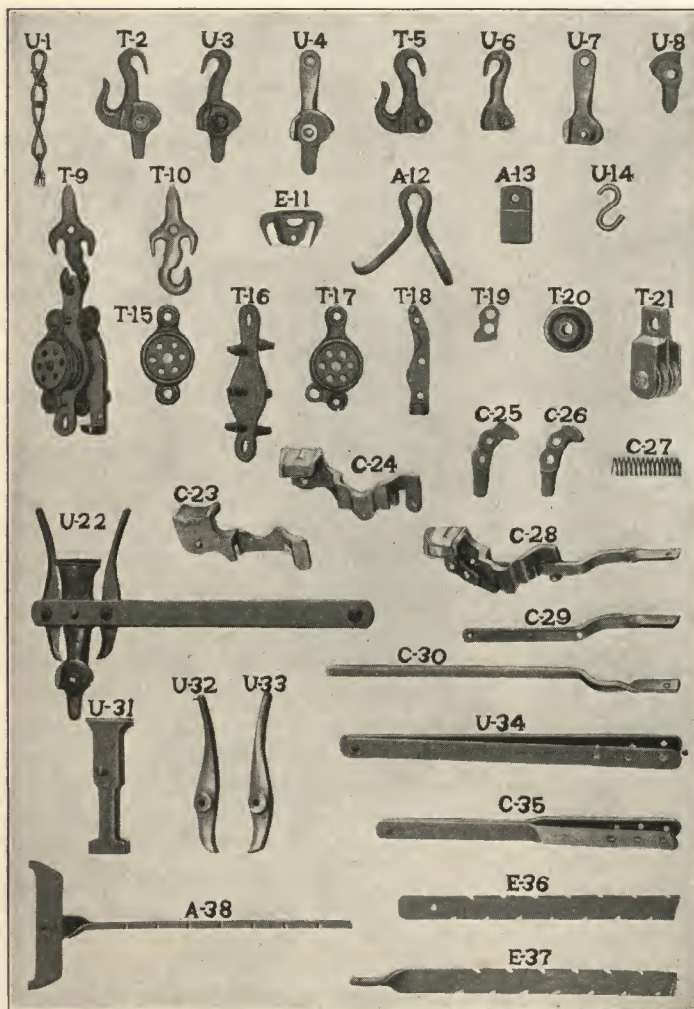
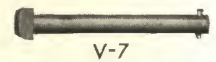
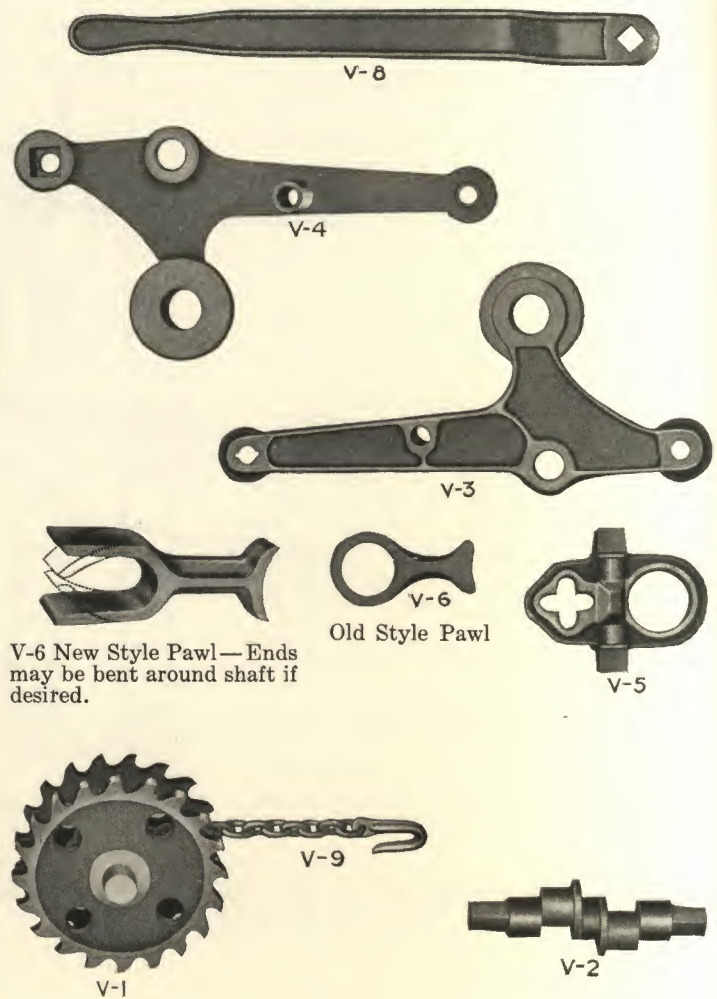


Fig. A-1990—Miscellaneous Parts for Various Wire Stretchers



V-6 New Style Pawl—Ends may be bent around shaft if desired.

Old Style Pawl

Prices and Description on Opposite Page



# Richards-Wilcox

## List Price of Fence and Wire Stretcher Parts

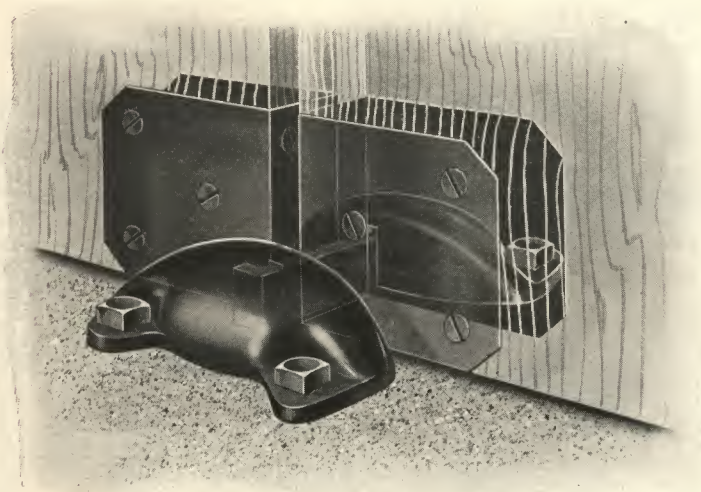
	EACH
U— 1 Chain, 28 inches long, for 232, 234 $\frac{1}{4}$ , 234 $\frac{1}{2}$ , 240.....	\$ .37
T— 2 Wire clamp and hook, for 240.....	.25
U— 3 Wire clamp, for 232, 234 $\frac{1}{4}$ , 234 $\frac{1}{2}$ , 240.....	.25
U— 4 Wire clamp, for 234 $\frac{1}{2}$ .....	.25
T— 5 Part of clamp, for 240.....	.20
U— 6 Part of clamp, for 232, 234 $\frac{1}{4}$ , 234 $\frac{1}{2}$ , 240.....	.20
U— 7 Part of clamp, for 234 $\frac{1}{2}$ .....	.20
U— 8 Dog for wire clamp, for 232, 234 $\frac{1}{4}$ , 234 $\frac{1}{2}$ , 240.....	.10
T— 9 Top block complete, for 240.....	.95
T—10 Chain hook, for 240.....	.12
E—11 End piece for bar, for 234 $\frac{1}{4}$ , 234 $\frac{1}{2}$ .....	.12
U—14 S hook, for 232.....	.08
T—15 Side plate, top block, for 240.....	.10
T—16 Main frame, top block, for 240.....	.32
T—17 Side plate, top block, for 240.....	.12
T—18 Rope guide, for 240.....	.20
T—19 Rope dog or grip, for 240.....	.10
T—20 Wheels, for 240.....	.08
T—21 Lower block, complete, for 240.....	.75
U—22 Slide bar sleeve, ratchets and handle, for 234 $\frac{1}{4}$ , 234 $\frac{1}{2}$ .....	.75
C—23 Front come-along, for 232.....	.25
C—24 Rear come-along, for 232.....	.25
C—25 Right hand dog, for 232.....	.12
C—26 Left hand dog, for 232.....	.12
C—27 Bar Spring, for 232.....	.15
C—28 Come-along complete, for 232.....	.65
C—29 Short bar, for 232.....	.12
C—30 Long bar, for 232.....	.20
U—31 Bar sleeve, for 234 $\frac{1}{4}$ , 234 $\frac{1}{2}$ .....	.20
U—32 Left hand ratchet, for 234 $\frac{1}{4}$ , 234 $\frac{1}{2}$ .....	.12
U—33 Right hand ratchet, for 234 $\frac{1}{4}$ , 234 $\frac{1}{2}$ .....	.12
U—34 Handle, for 234 $\frac{1}{4}$ , 234 $\frac{1}{2}$ .....	.37
C—35 Handle, for 232.....	.37
E—36 Ratchet bar, for 234 $\frac{1}{2}$ .....	.65
E—37 Ratchet bar, for 234 $\frac{1}{4}$ .....	.65
S— 1 Handle for 331, 531.....	1.25
S— 2 Chain for 331, 531.....	1.70
S— 3 Bolt with tail nut, for 331,531.....	.25
S— 4 Pawl for 331.....	.25
S— 5 Pinion for 331.....	.90
S— 6 Chain sprocket for 331.....	.75
S— 7 Gear wheel, for 331.....	1.90
S— 8 Pinion, for 531.....	.75
S— 9 Chain cog, for 531.....	.90
S—10 Cog wheel, for 531.....	1.75
V— 1 Sprocket, for 731.....	.90
V— 2 Crank shaft, for 731.....	.90
V— 3 Frame, right hand, for 731.....	.82
V— 4 Frame, left hand, for 731.....	.82
V— 5 Chain guide, for 731.....	.44
V— 6 Pawl, for 731.....	.25
V— 7 Slip pin, for 731.....	.25
V— 8 Lever handle, for 731.....	1.25
V— 9 Chain, for 731.....	1.90

Note—Always specify by number and state number of wire stretcher, repairs are required for.

Discount.....



## No. 671 Heavy Warehouse Door Guide



Designed to stand severe service and for use with extra heavy doors. Consists of three pieces: Two heavy cast iron guides which are bolted to the floor on each side of the door. These castings are of such design that there are no sharp corners or projections to damage tires; The center stop piece is made of steel and is removable so that in cases where a center stop is not wanted it can be omitted.

Adjustable in width for doors from  $1\frac{3}{4}$  to  $3\frac{1}{2}$  inches in thickness.

Expansion bolts are not included with the guide.

The bumper shoes to protect the corners of the door are sold separately.

Finish, black enamel.

Packed in bulk.

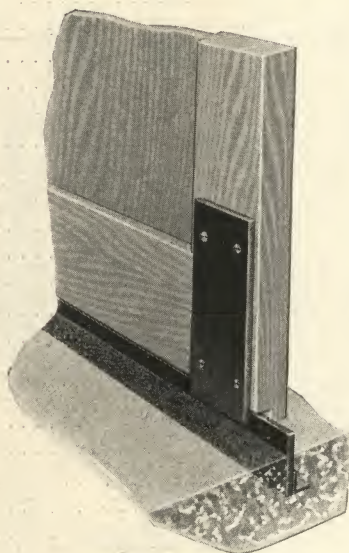
Weight,  $10\frac{1}{2}$  lbs.

### List Price

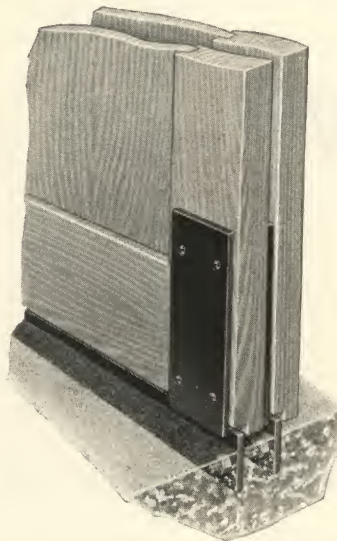
No. 671 Heavy Warehouse Door Guide. Each.....\$5.00

Discount.....

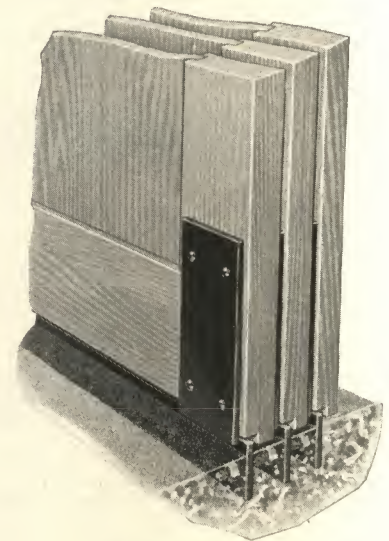
## No. 738 Guide Plate with No. 536 Door Guide Track



For Single Doors



For Double Doors



For Triple Doors

**No. 738 Guide Plates** bear on the track at only two points, at either end of the door. A  $\frac{3}{4}$  x  $\frac{3}{4}$ -inch notch cut out of the bottom edge of the door permits of little possibility of the doors binding in the guides, as the size of the notch makes considerable allowance for warpage. Guide Plates made of steel, 6 x  $\frac{1}{4}$  x 11 inches in size.

**No. 536 Door Guide Tracks** extend above the floor level and in that way prevent the entrance of snow and

water into the building. The spaces between the tracks are more easily cleaned than in the case of slots in the floor. The projection above the floor is not sufficient to interfere at all with driving in or out of the garage.

Spacing of the double and triple tracks can be adjusted on the job to suit any thickness of doors. The single track is supplied with anchors which can be fastened in place while pouring the concrete.

### List Price

No. 738 Guide Plate. Weight each, $4\frac{3}{4}$ lbs. Each .....	\$ .70
No. 536-1 Single Door Guide Track. Weight, per ft., 5 lbs. Per ft.....	.95
No. 536-2 Double Door Guide Track. Weight, per ft., 10 lbs. Per ft.....	1.90
No. 536-3 Triple Door Guide Track. Weight, per ft., 15 lbs. Per ft.....	2.80

Discount.....



## R-W No. 736

### Door Guide and Floor Guide

#### Helps Keep the Garage Warm

With this construction, door can be hung to clear floor, and the steel strip on door completely covers and protects the opening, also prevents doors from warping. Spreader washers between side strips of lower guide, in floor, hold groove open. The clear openings in the groove between these spreader washers allow water and dirt to drop between the floor strips and drain off through cinder bed.

Floor Guide is sunk in the floor and is composed of two strips of metal, assembled with spaces between, so as to make a groove through which the door guide slides.

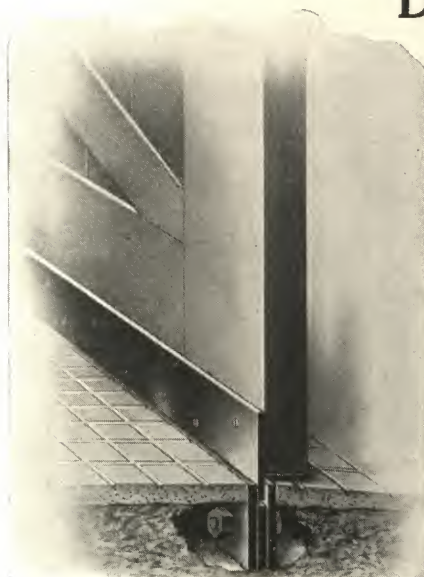
Especially desirable for parallel doors; prevents their chafing. Made of heavy steel and can be set into concrete or wood floor. Finish, black japan. Steel door guide is 4 by  $\frac{3}{16}$  inches; floor guide,  $3\frac{1}{2}$  by  $\frac{3}{16}$  inches. Bolts are spaced on 24-inch centers. Weight: Door guide, per 100 feet, 250 lbs.; floor guide strips, 900 lbs.

**Note**—When ordering state: Thickness and width of door, whether single, double or triple parallel doors and width of opening. Always send floor plan.

#### List Price

No. 736—Door Guide and Floor Guide, complete,  
Per foot.....\$1.40

Discount.....



No. 736 Door Guide and Floor Guide

### R-W No. 737 Door Guide and Floor Guide

This is the same as above but of lighter construction. Door guide,  $3\frac{1}{2}$  inches by 10 gauge; floor guide,  $3\frac{1}{2}$  by  $\frac{3}{16}$  inches. Finish, black japan. Weight, door guide, per 100 feet, 150 lbs.; floor guide strips, 450 lbs.

When ordering state thickness and width of door, whether single, double or triple parallel doors and width of opening.

#### List Price

No. 737—Door Guide and Floor Guide, complete. Per foot.....\$0.80

Discount.....

### R-W No. 738 Door Guide

Used on parallel doors. Prevents doors from swinging and chafing. Must be used with floor guides, such as Nos. 736, 737 as shown above. In such cases the continuous door guide strips are omitted. Also used with No. 536 floor guide and other special guides attached to or set into the floor. Made of steel 6 inches wide,  $\frac{1}{4}$  inch thick, 11 inches long. Finish, black enamel. Packed in bulk. Weight, per hundred, 475 lbs.

#### List Price

No. 738—Guide Plate. Each.....\$0.85

Discount.....

### R-W No. 635 Floor Guide

The No. 635 Floor Guide can be advantageously installed in connection with some installations of "SlidaSide" and "CornR-Wise" equipment where hardware is desired for holding the back edge of the door against the casing when it is closed.

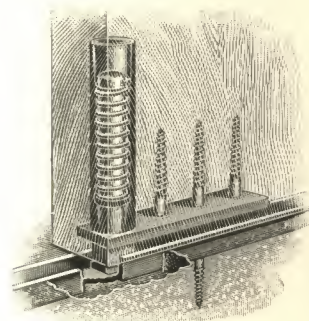
This No. 635 Floor Guide Equipment consists of: (1) a guide, No. 485, F. G., mortised into the bottom of the door at the back edge; (2) grooved floor guide track, No. 635-TK, extending from the back edge of the door in closed position and following the line of the overhead track around the corner inside the building along the side wall to a point directly below the end of the door hanger track, including (3), Floor Guide Corner Curve, No. 635-C, of the same radius as the overhead track curve, with which it runs in juxtaposition.

Where two doors hinged together slide in the same direction, the floor guide installation is the same as for one door, the equipment being identical with that stated in the above paragraph.

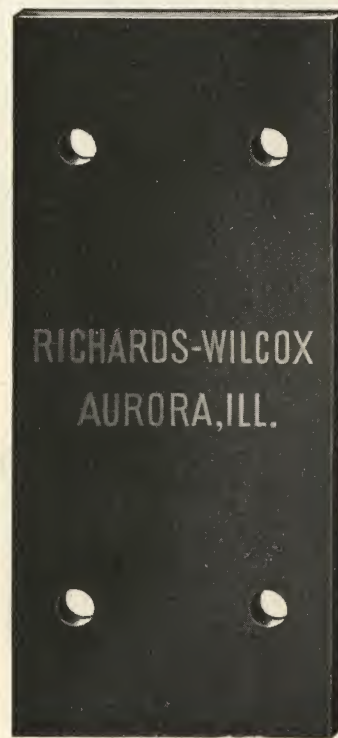
#### List Price

No. 635-TK —Floor Guide Track. Per foot, $\frac{3}{4}$ lb. ....	\$0.18
No. 635-C-6 —Floor Guide Track Curve, 6 inch radius. Each, $\frac{1}{2}$ lb. ....	.80
No. 635-C-18—Floor Guide Track Curve, 18 inch radius. Each, $1\frac{1}{2}$ lbs. ....	2.75
No. 635-C-24—Floor Guide Track Curve, 24 inch radius. Each, 2 lbs. ....	3.40
No. 635-C-30—Floor Guide Track Curve, 30 inch radius. Each, $2\frac{1}{2}$ lbs. ....	4.00
No. 635-C-36—Floor Guide Track Curve, 36 inch radius. Each, 3 lbs. ....	4.70
No. 635-F.G.—Floor Guide. Weight, $\frac{3}{4}$ lbs. Each.....	1.10

Discount.....

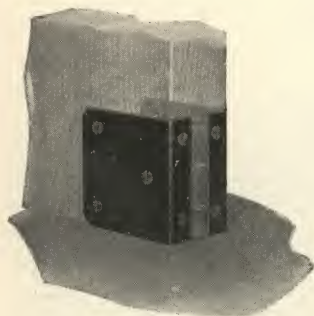


No. 635 F. G. Floor Guide and Floor Guide Track



No. 738 Door Guide





## R-W No. 435 x 72 Bumper Shoes

For use on garage, barn or warehouse doors. Made of 16 gauge steel. Size:  $3\frac{1}{2}$  inches high,  $3\frac{1}{2}$  inches wide,  $\frac{3}{4}$  inch lip. Finish, black enamel. Packed in bulk. Weight, per hundred, 30 pounds.

### List Price

No. 435 x 72 Bumper Shoes. Per hundred.....\$12.00

Discount.....

## R-W No. 172 Adjustable Parallel Door Floor Guide

Made in Two Sizes

For use with parallel sliding doors. No. 1 size for double parallel doors, No. 2 size for triple parallel doors. Guides the bottom of the doors and prevents chafing. Finish, black enamel.

Suitable for use with concrete or wood floors. When used with concrete floors, base should be set into the concrete about  $\frac{3}{4}$  inch.

Adjustable for doors  $1\frac{3}{4}$  to 3 inches thick.

Weight; No. 1, per hundred, 500 pounds  
No. 2, per hundred, 700 pounds.



No. 172-2

### List Price

No. 172-1 Adjustable Double Parallel Door Floor Guide, with screws. Each \$1.75  
No. 172-2 Adjustable Triple Parallel Door Floor Guide, with screws. Each 3.00

Discount.....

## R-W No. 272 Adjustable Floor End Door Guide and Stop

For use with sliding right angle garage doors. Holds the bottom of doors in position when either opened or closed. Made of steel and grey iron. Finish, black enamel.

Suitable for use with concrete or wood floors. When used with concrete floors, base should be set into the concrete about  $\frac{3}{4}$ -inch.

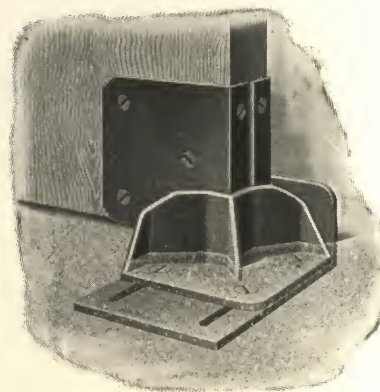
Adjustable for doors  $1\frac{3}{4}$  to 3 inches thick. Weight, per hundred, 250 pounds.

### List Price

No. 272 Adjustable Floor End Door Guide, with screws. Per hundred.....\$70.00  
No. 435-72 Steel Bumper Shoe. Per hundred..... 12.00

Discount.....

**Note**—Two Bumper Shoes are used on each end of door. Specify on order, if same are required



## R-W No. 372 Door Guide



For use with flush and parallel garage doors. Holds the bottom of the door close to the wall in either open or closed position. Requires only working clearance between the doors. Suitable for use with concrete or wood floors. When used with concrete floors, base should be set into the concrete about  $\frac{3}{4}$ -inch. End beveled to prevent injury to the door. One-fourth inch thick, 6 inches wide. Packed with screws. Weight, per hundred, 100 pounds.

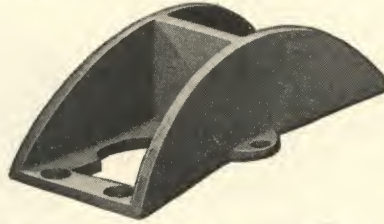
### List Price

No. 372 Door Guide. Each.....\$ .60

Discount.....



## R-W No. 171 Floor Center Stop Made in Three Sizes



Floor stop for use with pairs of sliding doors. Can be fastened to floor or imbedded in concrete. Made of grey iron Finish, black japan.

### List Price

No. 171-2	for doors 2	inches thick, weight, per hundred, 350 pounds.	Each.....	\$ .60
No. 171-2½	for doors 2½	inches thick, weight, per hundred, 370 pounds.	Each.....	.73
No. 171-3	for doors 3	inches thick weight, per hundred, 433 pounds.	Each.....	.87

Discount.....

## R-W No. 271 Adjustable Floor Center Door Guide

For use with pairs of sliding garage doors. Guides the bottom of doors and holds same in place when closed. Made of steel and grey iron. Finish, black enamel.

Suitable for use with concrete or wood floors. When used with concrete floors base should be set into the concrete about ¾-inch.

Adjustable for doors 1¾ to 3 inches thick. Weight, per hundred, 300 pounds.

### List Price

No. 271 Adjustable Floor Center Door Guide, with screws.	Each.....	\$ .90
No. 435-72 Steel Bumper Shoe.	Per hundred.....	12.00

Discount.....

**Note**—Two Bumper Shoes are used on each end of door. Specify on order if same are desired.

## R-W No. 371 Adjustable Floor Center Door Guide and Stop

For use with pairs of sliding doors. Guides the bottom of doors and holds them in place when closed. This guide also acts as a stop, as the doors cannot close further than the projecting lugs in the center of the guide.

Made of steel and malleable iron, finish, black enamel.

Suitable for use with concrete or wood floors. When used with concrete floors, base should be set into the concrete about ¾ inch. Adjustable for doors 1¾" to 3" thick. Weight, per hundred, 300 pounds.

### List Price

No. 371 Adjustable Floor Center Door Guide, with screws,	Each.....	\$ 1.00
No. 435-72 Steel Bumper Shoes.	Per hundred.....	12.00

Discount.....

**Note**—Two bumper shoes are used on the ends of each door where they come in contact with the floor guide. Specify on order if same are desired.

## R-W No. 571 Adjustable Floor Center Door Guide and Stop

For use with pairs of sliding doors. Guides the bottom of doors and holds them in place when closed. The projecting lugs also act as a stop for the doors. Made of malleable iron. Finish, black enamel.

Each No. 571 Guide consists of two pieces, making it adjustable for any thickness of door from 1¾" and over. Four expansion bolts with shields are furnished for attaching. It is not necessary to set the guide proper into the concrete, therefore, it may be installed at any time on either wood or concrete floors. Weight, per hundred, 250 pounds.

The bottom of the doors which come into contact with these guides should be protected by steel bumper shoes, which, although shown in the illustration, are not included in the list price, and will not be furnished unless specified.

### List Price

No. 571 Adjustable Floor Center Door Guide and Stop,	Each.....	\$ .90
No. 435-72 Steel Bumper Shoes.	Per hundred.....	12.00

Discount.....



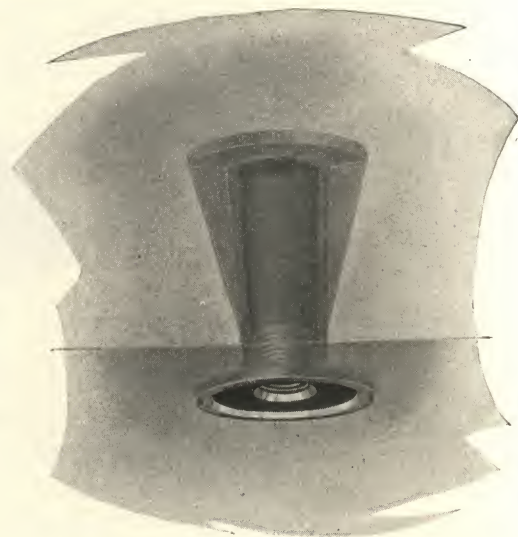
## R-W No. 106 Concrete Insert

Made of malleable iron. Comes in two sizes with hole tapped for  $\frac{5}{8}$ -inch and  $\frac{3}{4}$ -inch diameter bolts. Height,  $3\frac{1}{2}$  inches. Diameter of Face,  $2\frac{3}{8}$  inches. Walls are tapered to produce a wedging action on the concrete. Finish, black japan. Weight, each 1 lb. Packed in bulk.

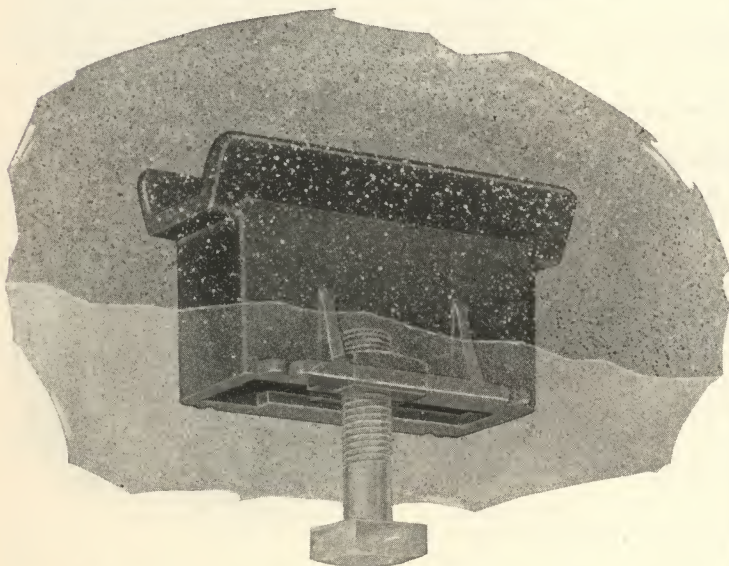
### List Price

No. 106- $\frac{5}{8}$  inch Concrete Insert. Per hundred.....\$50.00  
No. 106- $\frac{3}{4}$  inch Concrete Insert. Per hundred..... 50.00

Discount.....



## R-W No. 133 Concrete Insert



Made of malleable iron. The bolt opening is T shaped, the enlarged end is provided so that a nut or bolt head can be inserted. Insert is made high enough to allow bolt to enter insert  $1\frac{3}{4}$  inches, and to allow  $1\frac{3}{4}$  inches of sidewise adjustment of the bolt. Height overall,  $2\frac{1}{2}$  inches. Finish, black japan. Weight, each  $1\frac{1}{4}$  lbs. Packed in bulk.

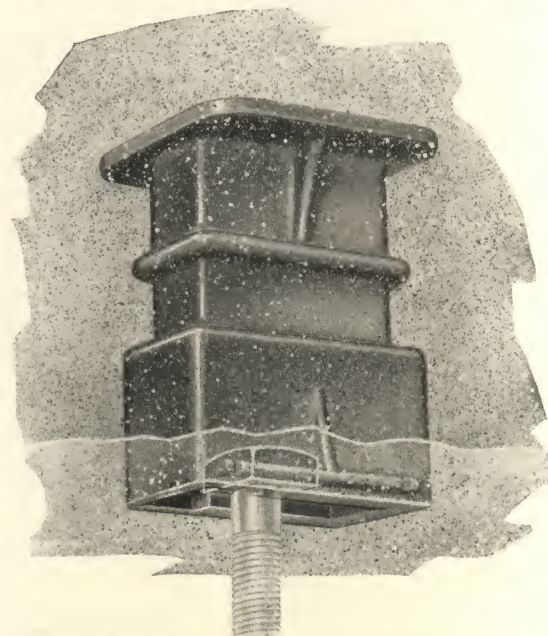
### List Price

Furnished in three sizes for  $\frac{5}{8}$ ,  $\frac{3}{4}$  and  $\frac{7}{8}$ -inch bolts.

Size	For $\frac{5}{8}$ " Bolt	Per Hundred	For $\frac{3}{4}$ " Bolt	Per Hundred	For $\frac{7}{8}$ " Bolt	Per Hundred
Length Exposed Face	$3\frac{1}{2}$ "	\$65.00	$3\frac{3}{4}$ "	\$65.00	$4\frac{3}{8}$ "	\$65.00
Width Exposed Face	2"	65.00	$2\frac{1}{4}$ "	65.00	$2\frac{1}{2}$ "	65.00

Discount.....

## R-W No. 134 Concrete Insert



Made of malleable iron. The bolt opening is T shaped, the enlarged end is provided so that a nut or bolt head can be inserted. Insert is made high enough to allow bolt to enter insert  $3\frac{3}{4}$  inches, and to allow  $\frac{7}{8}$ -inch of sidewise adjustment of the bolt. Height over all, 4 inches. Finish, black japan. Weight, each  $1\frac{3}{4}$  lbs. Packed in bulk.

### List Price

Furnished in three sizes for  $\frac{5}{8}$ ,  $\frac{3}{4}$  and  $\frac{7}{8}$ -inch bolts.

Size	For $\frac{5}{8}$ " Bolt	Per Hundred	For $\frac{3}{4}$ " Bolt	Per Hundred	For $\frac{7}{8}$ " Bolt	Per Hundred
Length Exposed Face	$2\frac{3}{4}$ "	\$75.00	$3\frac{3}{4}$ "	\$75.00	$3\frac{1}{4}$ "	\$75.00
Width Exposed Face	2"	75.00	$2\frac{1}{4}$ "	75.00	$2\frac{1}{2}$ "	75.00

Discount.....



## R-W No. 262 Studding Anchors

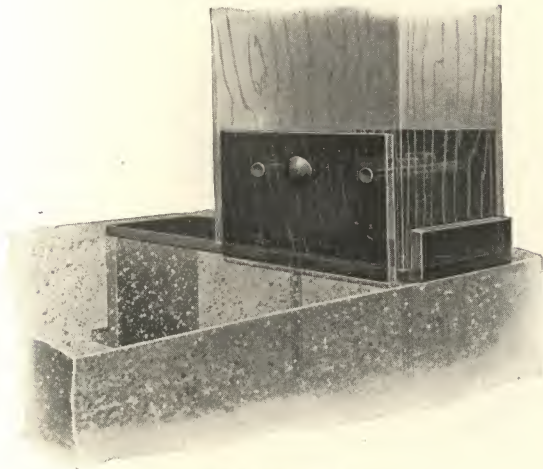


Fig. A-1990A

No. 262-1, for 2x4" or 2x6" studding.

These anchors were designed to replace wood sills in the construction of farm buildings, garages, etc., which are built on concrete floors or foundations. The No. 262-1 size is made for 2x4 or 2x6" studs while the No. 262-2 will accommodate either 2x6" or 2x8" studs.

The anchor has a "U" shaped base which is securely riveted to a bent anchor plate which is pushed down into the soft concrete. The bent end of the anchor securely locks it into the concrete after the concrete has become hard. Spikes are driven through the horizontal leg of the anchor into the soft concrete to hold it in alignment sidewise.

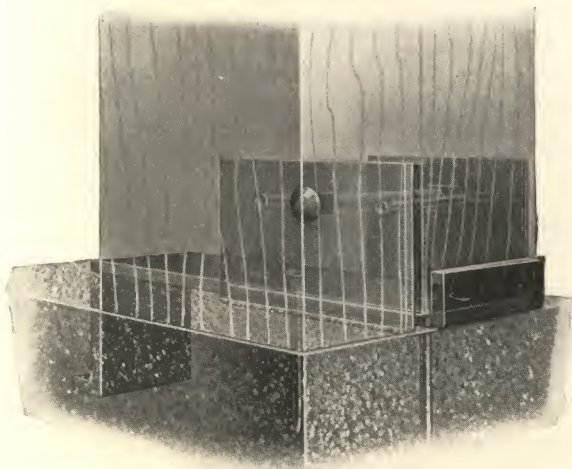


Fig. A-1990B

When used for corner post, set the anchor  $1\frac{3}{4}$ " from end. Nail the second stud to the first, notching out the second stud to insure tight fit.

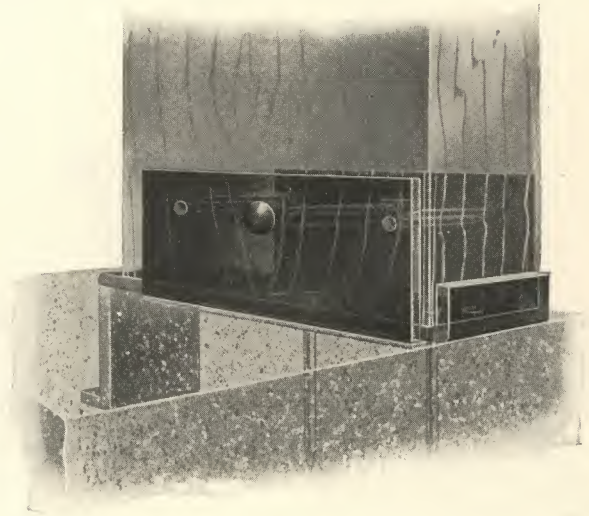


Fig. A-1990C

No. 262-2, for 2x6" or 2x8" studding.

After the concrete has hardened, the studding is slipped into the socket and is fastened in place by a through bolt and two nails through each vertical side of the "U" shaped section.

When used for corners, the anchor is set into the concrete  $1\frac{3}{4}$ " from the end. After one studding has been set, the second or outside studding is notched out at the bottom enough to clear the side of the anchor and then nailed to the first studding, thus forming a double corner post.

Anchors are made of steel, galvanized finish. Packed in bulk. Weight, No. 1 size 136 lbs. per hundred, No. 2 size 185 lbs. per hundred.

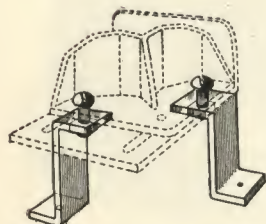
### List Prices

	PER 100
No. 262-1 Studding Anchors. Per hundred.....	\$30.00
No. 262-2 Studding Anchors. Per hundred.....	35.00

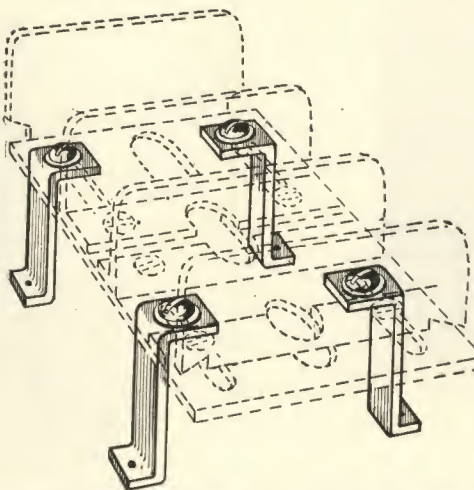
Discount.....



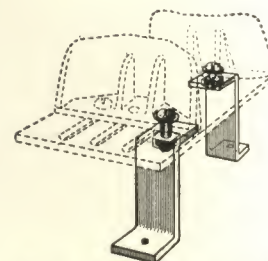
## R-W No. 472 Concrete Anchors for Door Guides and Stops



No. 472 Concrete Anchor  
Attached to No. 272 End  
Floor Door Stop.



No. 472 Concrete Anchors Attached to No. 172  
Parallel Door Guides



No. 472 Concrete Anchor  
Attached to No. 271 Center  
Floor Guide.

Especially designed for use in securing R-W Door Floor Guides and Stops to concrete floors, but also useful for anchoring other materials.

One pair is required for a No. 271 Center Floor Guide or a No. 272 End Floor Stop. Two pairs are required for a No. 172 Parallel Door Guide. All guides are adjustable for different thicknesses of doors.

### List Price

No. 472 Concrete Anchors. Per hundred pairs.....\$30.00  
Discount.....

## R-W No. 470 Heavy Flush Pulls



This malleable iron flush door pull is designed for very heavy doors,  $1\frac{3}{4}$ " or more in thickness. It is necessary to cut a mortise into the door  $1\frac{3}{4}$ " deep in which to set the cup of the pull. When used on a  $1\frac{3}{4}$ " door, it is necessary to use back plates on the opposite side of the door. These plates are made of No. 14 gauge steel and are furnished when specified at a slight additional charge.

Pull is attached by flat head bolts which extend thru the door. These bolts are not included in list prices shown below, but will be furnished at a slight additional charge if thickness of door is given. It is  $6\frac{1}{2}$ " long overall and  $4\frac{3}{4}$ " wide. The inside dimensions of the cup are  $3\frac{7}{8}$ " wide by  $4\frac{1}{2}$ " high by  $1\frac{3}{4}$ " deep.

These pulls are packed in bulk. Black japan finish. Weight, per hundred, 300 pounds. Back Plates, per hundred, 50 pounds.

### List Price

R-W No. 470 Flush Pull. Each.....\$1.50  
R-W No. 470 Back Plates required only for  $1\frac{3}{4}$ " doors. Each... .25

### Discount

## R-W No. 70-1 and 70-2 Flush Pulls

No. 70-1 Flush Pulls, for doors up to  $1\frac{3}{4}$ " thick. Requires  $\frac{3}{4}$ " deep mortise in doors. Size  $4"$  x  $5\frac{7}{8}"$ ; inside dimensions of cup  $1\frac{1}{2}"$  x  $3\frac{1}{2}"$ ,  $\frac{7}{8}"$  deep. Black enamel finish. Packed in bulk. Weight, per hundred, 75 pounds.

No. 70-2 Flush Pulls, for doors over  $1\frac{3}{4}"$  thick. Requires  $1\frac{1}{2}"$  deep mortise in door. Size  $4\frac{1}{2}"$  x  $7"$ . Inside dimensions of cup  $1\frac{3}{8}"$  x  $4\frac{1}{2}"$ ,  $1\frac{5}{8}"$  deep. Black enamel finish. Packed in bulk. Weight, per hundred, 125 pounds.



### List Price

No. 70-1 Flush Pulls. Per hundred.....\$27.00  
No. 70-2 Flush Pulls. Per hundred..... 33.00

### Discount

## R-W No. 170 Flush Drop Handle

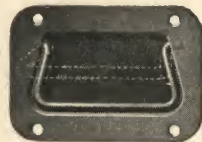
Designed Especially for Use with Right Angle Garage Doors

These pulls are used with any sliding door where a secure grip is desired. Made of steel. Handle furnishes a secure grip and drops by gravity out of the way. Size of plate,  $3\frac{3}{4}$  inches by  $5\frac{1}{4}$  inches. Finished black enamel. Packed, one dozen in metal edged box, complete with screws. Weight, per hundred, 55 pounds.

### List Price

No. 170 Flush Drop Handle. Per hundred.....\$35.00

### Discount





## R-W Nos. 71, 81 and 91 Bow Handles



No. 71 Bow Handle



No. 81 Bow Handle



No. 91 Bow Handle

No. 71—Bow Handles made of steel in two sizes: No. 1, 6½ inches long over all; No. 2, 7¾ inches long over all. Finish, black enamel. Bolt Holes register with Holes in No. 70 Flush Pulls. Packed one dozen in metal-edged box.

No. 81—Bow Handles made of grey iron in two sizes: No. 1, 6¼ inches long over all; No. 2, 8 inches long over all.

Finish, black enamel. Packed one dozen in metal-edged box.

No. 91—Bow Handles are made of steel, in one size. 6¾ inches long overall. Finish, black enamel. Holes are for screws and do not register with holes in No. 70 Flush Pull. Packed one dozen in metal-edged box.

### List Price

No. 71-1 Bow Handle.	Weight, per hundred, 33 pounds.	Per hundred	\$14.00
No. 71-2 Bow Handle.	Weight, per hundred, 50 pounds.	Per hundred	20.00
No. 81-1 Bow Handle.	Weight, per hundred, 50 pounds.	Per hundred	27.00
No. 81-2 Bow Handle.	Weight, per hundred, 100 pounds.	Per hundred	45.00
No. 91 Bow Handle.	Weight, per hundred, 25 pounds.	Per hundred	14.00

Discount.....

## Bow Handles for Heavy Doors R-W No. 191 Heavy Bow Handle with Straight Pad

This bow handle is designed for very heavy doors. It is made of malleable iron, black enamel finish. Securely held to door by one bolt (½" in diameter) in each pad, which extends through the door. These bolts are not furnished regularly, nor are they included in the list price, but will be packed when specified at a slight additional charge. Be sure to state thickness of door if bolts are desired. The overall length of this handle is 15". The handle projects 2¾ inches from the face of the door. The opening for hand is 9" long by 1⅞" deep. The grip is ⅞" in diameter. This handle is packed in bulk. Weight, per hundred 270 pounds.

### List Price

No. 191 Bow Handle.	Each	\$3.00
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Discount.....

## R-W No. 291 Heavy Bow Handle with Offset Pad

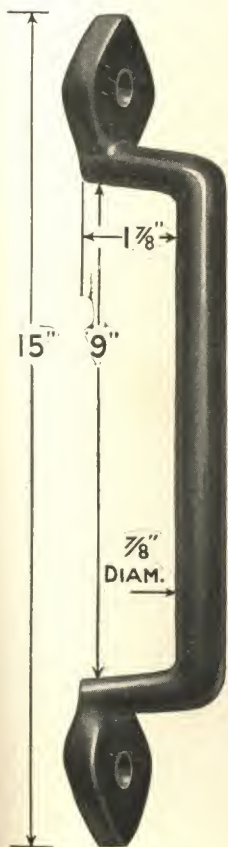
Heavy steel doors of angle iron construction sometimes demand a heavy bow handle with offset pads. This type, the R-W No. 291 when applied to wood doors, also affords more bearing on the door, as there are two bolts used in each pad. These ½" diameter bolts extend through the door.

List price below does not include bolts, but if desired, and specified, they will be furnished at a slight additional charge. Be sure to give thickness of door if bolts are ordered. The overall length of this handle is 13½". The handle projects 2¾" from the face of the door. The opening for hand is 9" long by 1⅞" deep. The grip is ⅞" in diameter. Packed in bulk. Weight, per hundred, 306 pounds.

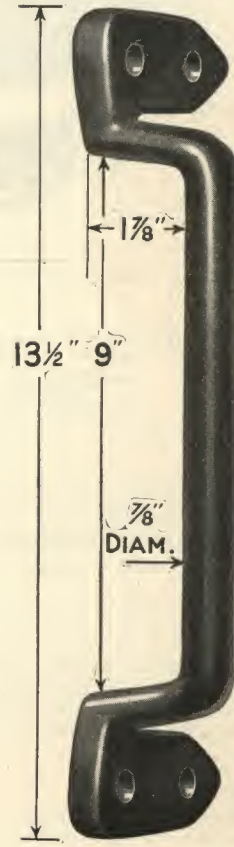
### List Price

No. 291 Bow Handle.	Each	\$3.00
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Discount.....

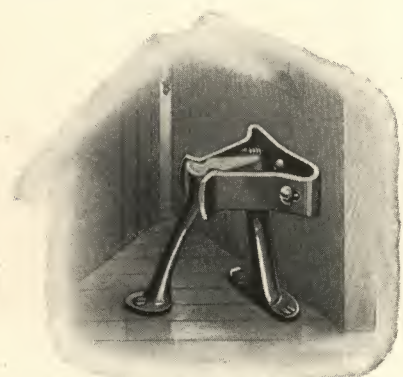


No. 191



No. 291





## R-W No. 118 "Sure Grip" Door Holder For Floor Attachment

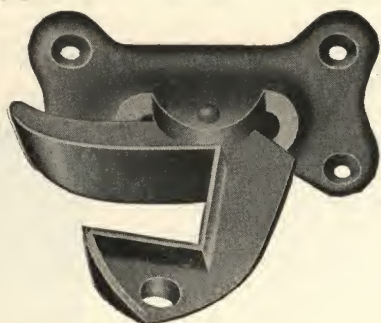
Holders made of malleable iron, door clips of special spring metal. Finishes as stated in list price below. Packed one dozen in metal-edged box, complete with all screws finished to match holder. Weight, per hundred, 33 pounds.

### List Price

	Unpolished	Polished
No. 118 Door Holder, japanned. Per hundred .....	\$19.00	\$31.00
No. 118 Door Holder, bronze plated. Per hundred .....	27.00	50.00
No. 118 Door Holder, antique copper plated. Per hundred .....	27.00	50.00
No. 118 Door Holder, brushed brass. Per hundred .....	27.00	50.00

Discount .....

**Note**—Above finishes carried in stock. Special finishes and solid metal made to order. Prices quoted on application. When ordering be sure to state whether polished or unpolished finish is desired.



## R-W No. 129 Gravity Door Catch

As shown in the illustration, this is an automatic gravity catch for one inch doors. It is used for swinging doors, screen doors and gates.

Made of grey iron. Finish, black japan. Packed one dozen in metal-edged box. Weight, per hundred, 55 pounds.

### List Price

No. 129 Gravity Catch. Per hundred .....	\$10.00
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Discount .....

## R-W No. 119 "Sure Grip" Door Holder For Wall Attachment

Holders made of steel and door clips of special spring metal. Finishes as stated in list price below. Packed one dozen in metal-edged box, complete with all screws finished to match holder. Weight, per hundred, 31 pounds.

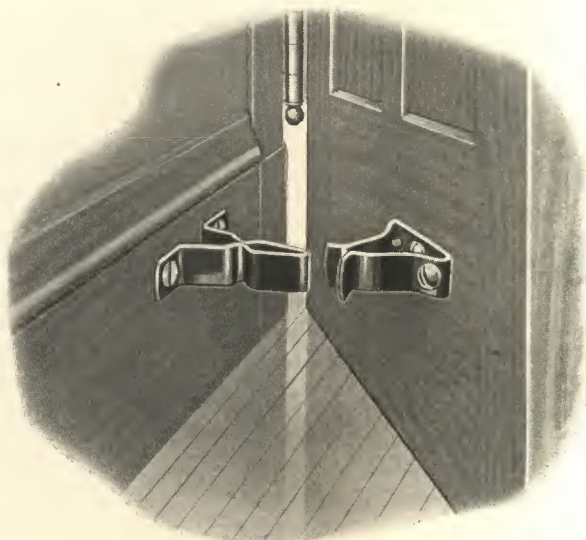
### List Price

	Unpolished	Polished
No. 119 Door Holder, japanned. Per hundred .....	\$19.00	\$31.00
No. 119 Door Holder, bronze plated. Per hundred .....	27.00	50.00
No. 119 Door Holder, antique copper plated. Per hundred .....	27.00	50.00
No. 119 Door Holder, brushed brass. Per hundred .....	27.00	50.00

Discount .....

**Note**—Above finishes carried in stock. Special finishes and solid metal made to order. Prices quoted on application.

When ordering be sure to state whether polished or unpolished finish is desired.





R-W No. 128-2

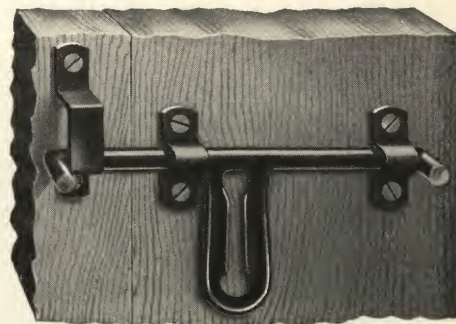
## "Dandy" Door Bolt and Gravity Latch

For swinging or sliding, inside or outside doors. Can be securely locked with padlock. Especially adapted for box stalls, gates and inside doors, as it cannot be opened by horses or cattle. Reversible for right or left-hand doors. Bolt, malleable iron. Staples, steel. Latch bolt, 1½ inch diameter, 8 inches long. Finish, black enamel. Packed one in a box with screws. Weight per hundred: No. 1, 112 lbs.; No. 2, 108 lbs.

### List Price

No. 128-2 Gravity Latch. Per hundred.....\$30.00

Discount.....



R-W No. 835

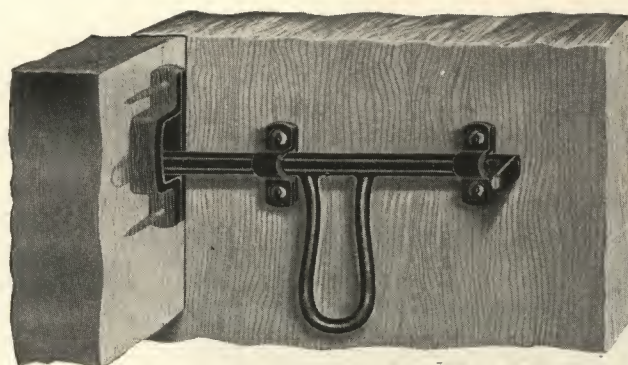
## Door Bolt and Gravity Latch

Designed especially for use with R-W No. 835 Garage Door Sets but also may be used on the outside face of a single in-swinging door. Adapts itself to being locked by a padlock. Reversible for right or left hand doors. Bolt of malleable iron, other parts of steel. Size: ½ inch diameter; 8 inches long. Finish, black enamel. Packed one in a box with screws. Weight, per hundred, 100 pounds.

### List Price

No. 835 Door Bolt and Gravity Latch. Per hundred.....\$30.00

Discount.....



R-W No. 325

## Sliding and Swinging Door Latch

Made of steel and malleable iron. For sliding or swinging doors without change or adjustment. Reversible for right or left-hand single or double sliding or swinging doors.

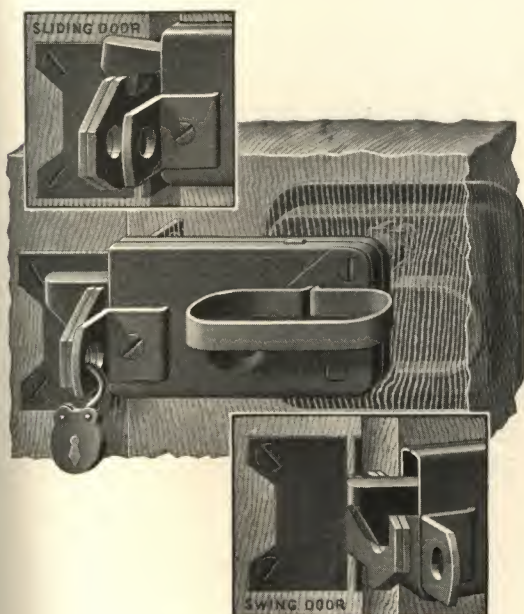
Can be operated from inside or outside of door. Flush drop handle on wall side of the door. Size of flush cup for drop handle, 3¼x3⅞ inches, ½ inch deep.

Adjustable for doors 1¾ to 2½ inches thick. Can be locked with padlock, which, however, is not furnished. Finish, regular rustless dead black. Packed, one in metal-edged box, with screws. Weight, per hundred, 250 pounds.

### List Price

No. 325 Latches. Each.....\$1.00

Discount.....





## R-W No. 219 Door Latch



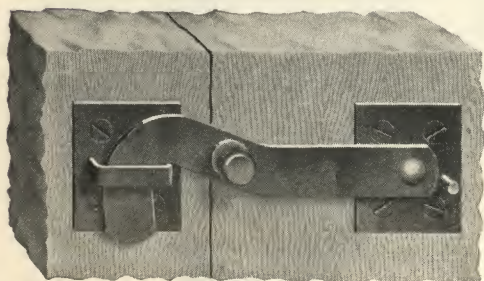
Designed especially for use on sliding-folding garage doors **opening outside**. The latch is applied to the two doors where they are hinged together. Latches automatically. Holds the doors ridgedly in line when latched. A pin extends through the door for unlocking from the inside. Can be locked with padlock. Reversible. Latch bar is 16 inches long,  $\frac{1}{4}$  inch thick and  $1\frac{1}{2}$  inches wide. Black japan finish. Packed one in a metal-edged box with bolts. Weight, per hundred, 225 pounds.

### List Price

No. 219 Door Latch. Each.....\$1.20

Discount.....

## R-W Nos. 1025-1 and 2 Door Latch



For Sliding and Swinging Doors on Factories, Barns, Warehouses, Garages, Tool Houses, Granaries, etc.

A simple and strong steel latch, made of forged steel,  $\frac{3}{16}$  inch thick and 1-inch wide, in two sizes, attractively finished in black japan or galvanized.

For either inside or outside use. Right or left hand. Illustration shows right hand.

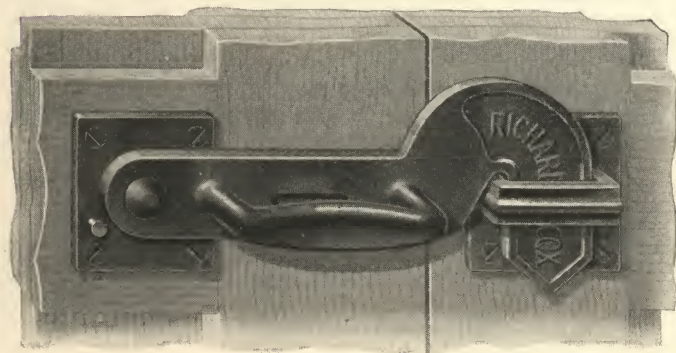
Packed one dozen in a box, six right hand and six left hand, complete with screws for attaching to the door.

### List Price

		Japanned	Galvanized
R-W No. 1025-1 Latch.	Weight, 98 lbs., per hundred.		
6 inch size.	Each.....	\$ .75	\$1.00
R-W No. 1025-2 Latch.	Weight, 108 lbs., per hundred.		
8 inch size.	Each.....	.82	1.05

Discount.....

## R-W No. 1025-4 Door Latch



Made especially for very heavy doors. For either inside or outside use. Right or left hand. Illustration shows left hand.

Made of malleable iron. Size: Length overall, 14 inches; Length of latch bar, 1 foot; Pivot plate,  $3\frac{1}{2}$  x 4 inches; Keeper, 4 x 4 inches.

Finish, black japan or galvanized.

Packed in bulk.

Weight, per hundred, 468 pounds.

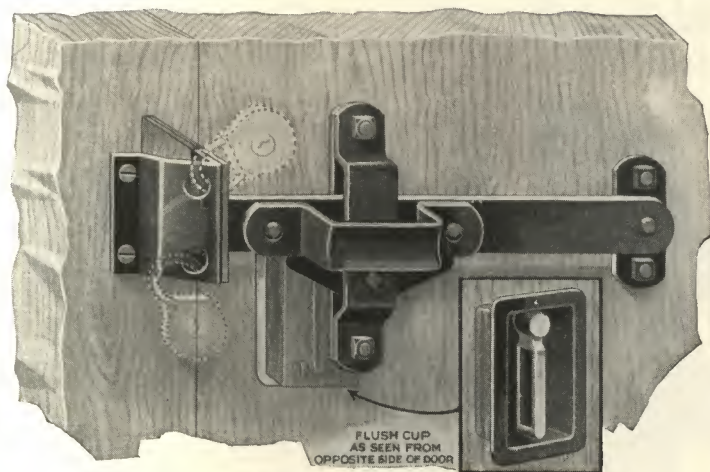
### List Price

No. 1025-4 Door Latch.	Black japan.	Each.....	\$3.00
No. 1025-4 Door Latch.	Galvanized.	Each.....	\$4.00

Discount.....



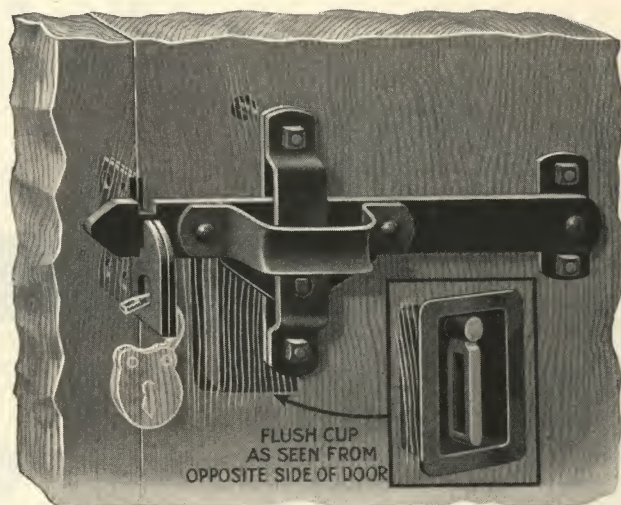
## R-W No. 152 Sliding Door Latches



Nos. 152-1 and 152-2

This latch is especially designed for heavy mill and warehouse doors, can be operated from either side. With the padlock in place as shown in full lines, latch bar cannot be lifted and the keeper and door plate are securely locked together. Padlock is not furnished with the latch.

Made reversible for right or left hand doors. Latch bar 14" long, 1½" wide, 5/16" thick. Adjustable for doors 1¾" to 2¾" thick. No. 152 keeper is designed to attach to face and edge of jamb, providing an especially secure fastener. No. 152A Keeper is attached to edge of jamb only. The Keepers do not project into the opening. The



Nos. 152A-1 and 152A-2

No. 1 flush cup on the opposite side of the door is 3⅞" high by 2⅛" wide inside. The No. 2 flush cup is 4" high by 4" wide. Finish, black japan. Packed one in a metal-edged box. Weight, per hundred, 555 pounds.

### List Price

No. 152-1 Latch.	Per hundred.....	\$115.00
No. 152-2 Latch.	Per hundred.....	130.00
No. 152A-1 Latch.	Per hundred.....	115.00
No. 152A-2 Latch.	Per hundred.....	130.00

Discount.....

## R-W No. 135 Partition Door Flush Bolt

Neat appearing, easy operating, strong and durable, flush door bolts. 1 inch wide, 9 inches long, weight, per hundred, 50 pounds.

Dead Black Finish. Per hundred..\$ 80.00  
Polished Brush Brass Finish. Per hundred..... 150.00

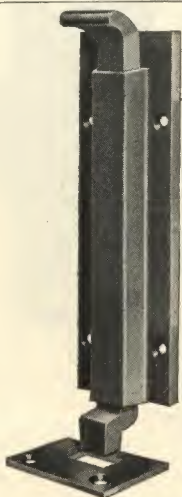
Discount.....

## R-W No. 237 Partition Door Surface Bolt

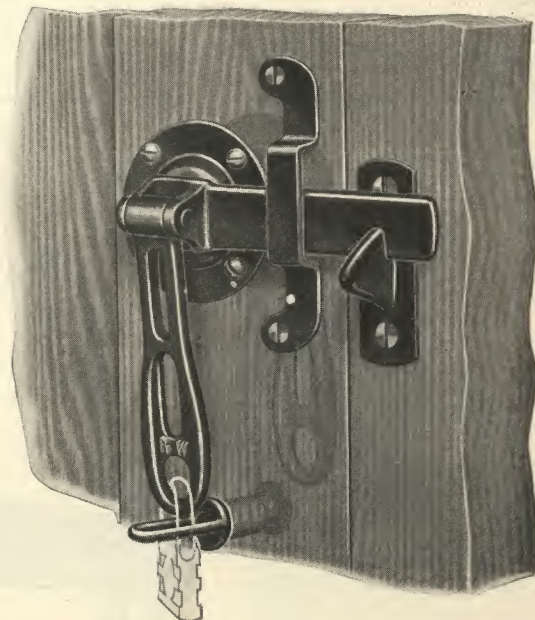
Positive locking, sturdy yet pleasingly designed surface bolt. The bottom of the bolt proper is offset so that the bolt and its keeper plate will clear the floor guide track. 7 ins. high, 2 ins. wide, wt., 150 lbs. per 100. Packed one each, with screws in cardboard box.

Dead Black Finish. Per hundred....\$150.00  
Polished Brush Brass Finish. Per hundred..... \$200.00

Discount.....



## R-W No. 419 Latch for Swinging Doors



Operates by drop handle on each side of door. A padlock eye is furnished which can be used on either the inside or the outside of the door. Is adjustable for doors 1¾ to 3 inches thick. Made entirely of steel and malleable iron. Packed one in a box with screws. Finish, black enamel. Weight, per hundred, 300 pounds.

### List Price

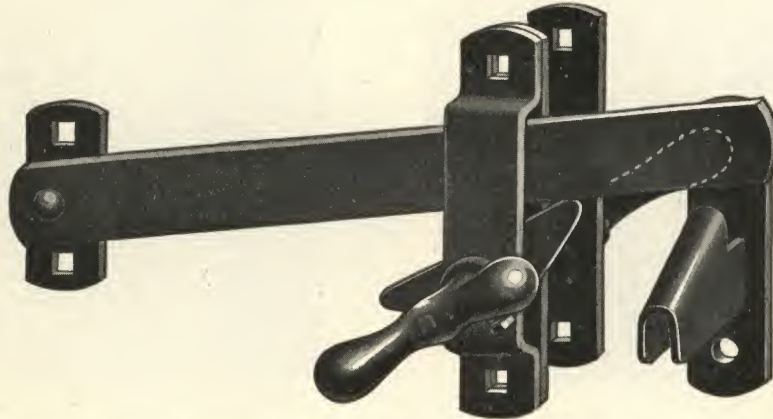
No. 419 Latch.	Each.....	\$3.00
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Discount.....



## R-W No. 225 "Lion" Steel Latch For Swinging Doors Only.

If it is desired to use padlocks with these latches, use No. 139 Padlock Plates, illustrated on page 443.



Reversible for right or left-hand doors. Can be operated from either side of door. Nos. 1, 2 and 3 adjustable for doors  $1\frac{3}{4}$  to  $2\frac{5}{8}$  inches thick. No. 4 for doors up to 3 inches thick. Handles on Nos. 1 and 2, grey iron; Nos. 3 and 4, malleable iron.

No. 4 is extra heavy in construction.

Nos. 1 and 2 are for light doors; No. 3 for medium doors and No. 4 for extra heavy warehouse doors.

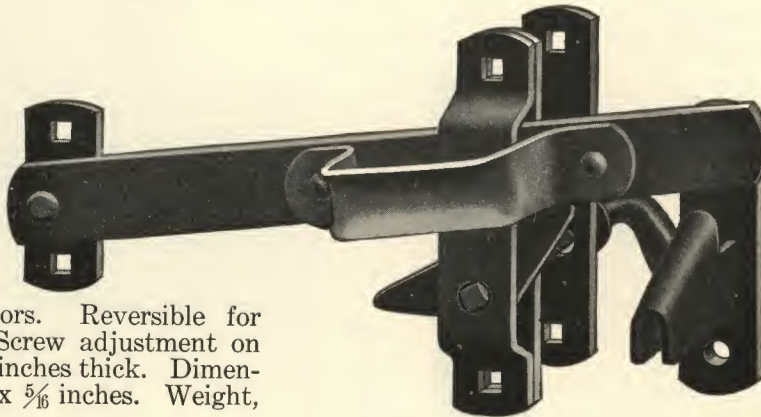
Finish, black japan. Packed, Nos. 1 and 2, one dozen in wood box; Nos. 3 and 4, one latch in metal-edged box.

### List Price

Number	Latch Bar, Inches	Weight, Each	Price Each
225-1.....	10x1 x $\frac{1}{4}$	3 lbs.	\$ .80
225-2.....	12x1 $\frac{1}{4}$ x $\frac{1}{4}$	3 $\frac{1}{2}$ lbs.	1.00
225-3.....	14x1 $\frac{1}{2}$ x $\frac{5}{16}$	6 lbs.	1.20
225-4.....	14x1 $\frac{1}{2}$ x $\frac{5}{16}$	7 lbs.	1.40

Discount.....

## R-W No. 125 "Bull Dog" Steel Latch For Warehouses and Factory Doors



For heavy swinging doors. Reversible for right or left hand doors. Screw adjustment on spindle to suit doors up to 3 inches thick. Dimensions of latch bar, 14 x  $1\frac{1}{2}$  x  $\frac{5}{16}$  inches. Weight, per hundred, 583 pounds.

Packed, one latch in metal edged box.

If it is desired to use padlocks with these latches, use No. 139 Padlock Plates, illustrated on page 443.

### List Price

No. 125—Latch. Each.....\$1.20

Discount.....



## R-W No. 516 Parallel Door Bolt and Lock

Patented



Designed especially for garage doors operating on parallel track, but may be used on single doors by inserting keeper casting in the jamb on side wall.

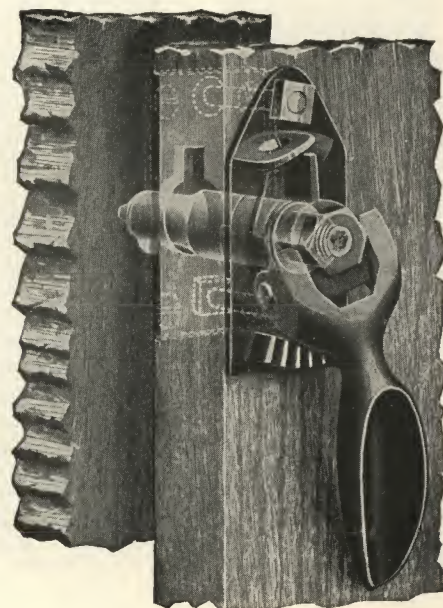
This bolt can be used with No. 235 Single Garage Doors.

Made of malleable iron and steel.

Suitable for doors  $1\frac{3}{4}$  to 3 inches thick.

Lock is inserted in the stile of door, the key or bolt passing entirely through the stile of door on the inside track and into the keeper in the stile of the outside door.

When used with single doors, this bolt passes into the keeper inserted in the jamb.



By turning the handle, doors are drawn together and held in that position by a stop lug resting in notched section on the lock plate. This prevents turning of bolt or same being removed or doors opened.

When used on the outside of building, a padlock can be attached, thus providing a combined bolt and lock.

Doors should lap each other or jamb at least 2 inches.

Finish, regular black enamel; other finishes furnished on application. Packed one in metal-edge box, complete with bolts and screws

Weight, per hundred, 350 pounds.

### List Price

No. 516 Parallel Garage Door Bolt, regular finish. Each.....\$2.00

Discount.....

## R-W No. 616 Bolt

For locking parallel sliding from the inside only.

Made of malleable iron.

Reversible for right or left hand. Cup in which the lever is pivoted is mortised into one door of the pair, or into the jamb. Lever is held in place when door is unlocked by a spring clip.

Lugs on lever work on a cam shaped piece attached to the back edge of one door and the cam is so shaped that as the lever is drawn down, the doors are wedged together. When the lever is in horizontal position and the pivoted handle in the position shown in illustration, the doors are drawn as tight together as possible. Lever is stopped in the horizontal position by lug, so that it can not drop below this point.

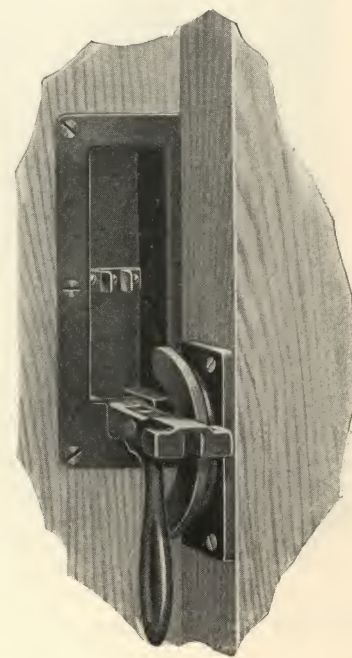
Size of plate on flush cup,  $8\frac{1}{4}$  inches high by  $3\frac{1}{2}$  inches wide. Cup is  $1\frac{3}{8}$  inches deep.

Suitable for doors  $1\frac{3}{4}$  inches or more in thickness. Packed one in a box with screws. Weight, per hundred, 300 pounds.

### List Price

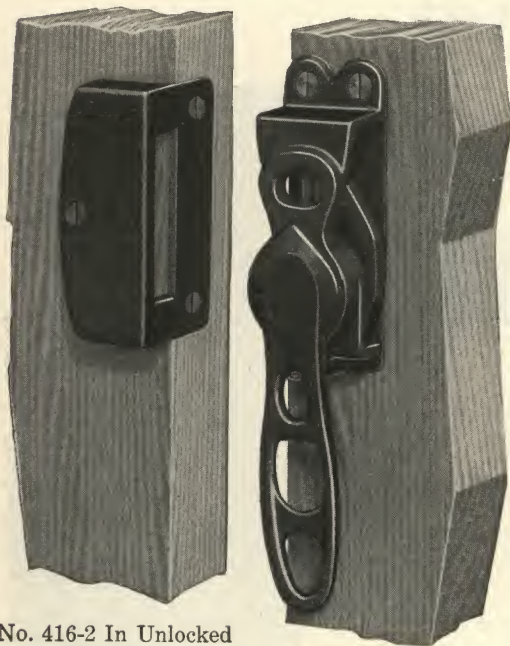
No. 616 Bolt. Each.....\$2.30

Discount.....





## R-W No. 416 "Titite" Door Lock



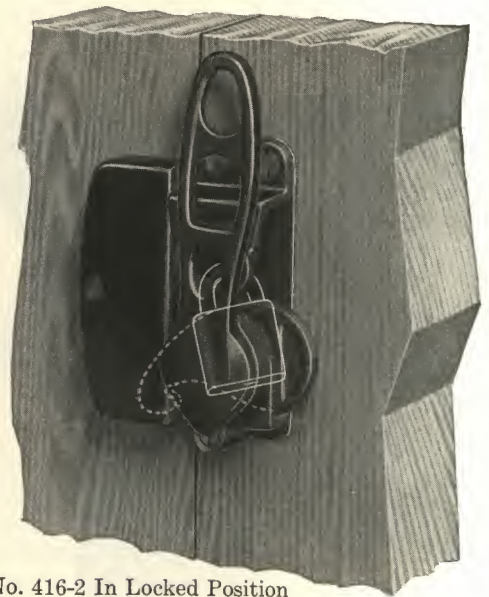
No. 416-2 In Unlocked Position

A malleable iron lock which has been designed to meet the hard usage to which a lock of this type is subjected.

Lock draws the door to which it is attached firmly up against the jamb, or other door, depending on the conditions. This shuts out the wind and helps to keep the garage warm in winter.

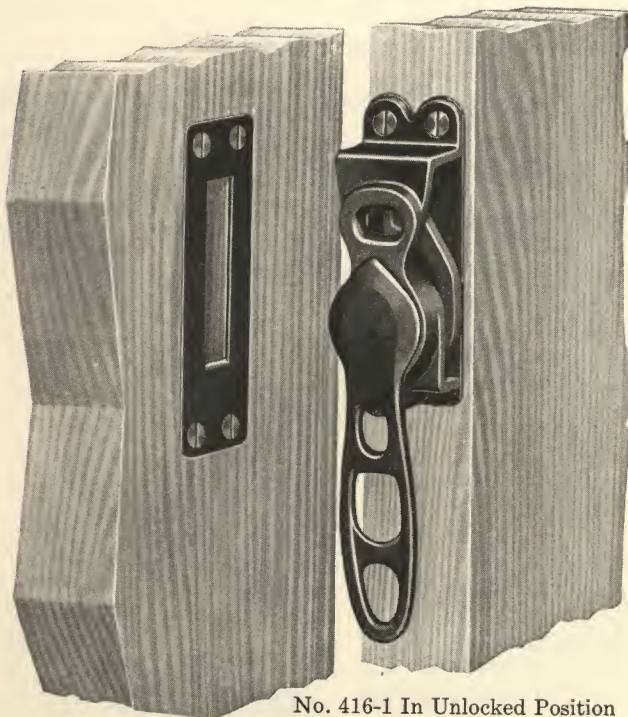
When desired, a padlock can also be used to lock the doors. It is impossible to remove the lock from the door when locked, as it is held in place by screws which are not accessible to an intruder.

Regular finish, galvanized. Baked enamel also furnished if desired. Packed one in a box including screws for attaching.



No. 416-2 In Locked Position

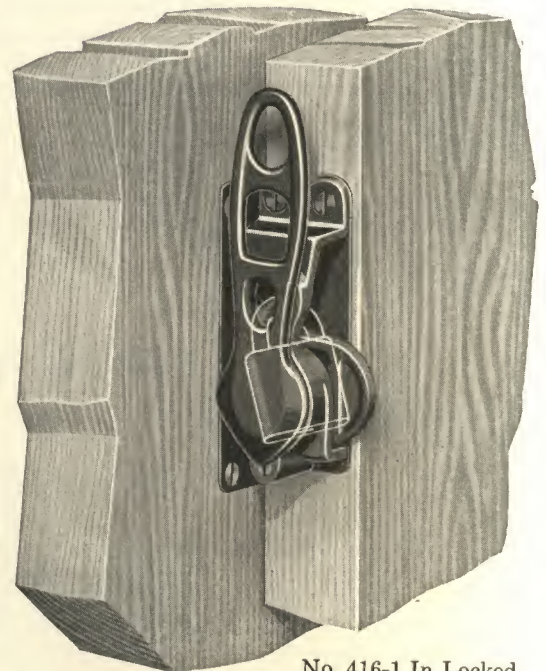
Above illustrations show lock applied to Straight Sliding Doors



No. 416-1 In Unlocked Position

The No. 416-1 is intended for parallel doors, and is furnished with a flush keeper. The lock is attached on the edge of the door, while the keeper is inserted into the face of the other door. This type can be used on doors  $1\frac{3}{4}$ " or more in thickness. Weight, per hundred, 150 pounds.

These lower illustrations show lock applied to Parallel Doors



No. 416-1 In Locked Position

The No. 416-2 is intended for single sliding or sliding doors in pairs, and is furnished with a surface keeper. The lock is attached to the face of the door, while the keeper is attached to the face of the adjoining door in case of doors in pairs, or to the jamb in the case of single doors. Suitable for doors of any thickness. Weight, per hundred, 200 pounds.

### List Price

R-W No. 416-1 or 2 Locks, (specify which is desired). Each..... \$1.50  
Discount.....



## R-W No. 518 Parallel Door Bolt

**For Heavy Freight or Warehouse Parallel Doors.**

Designed especially for doors operating on parallel track, but may be used on single doors by inserting keeper casting in the jamb on the side wall.

Made of malleable iron and steel.

Suitable for doors  $2\frac{1}{2}$  to 3 inches thick.

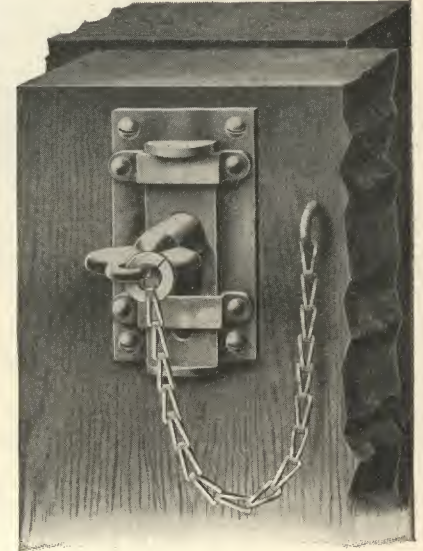
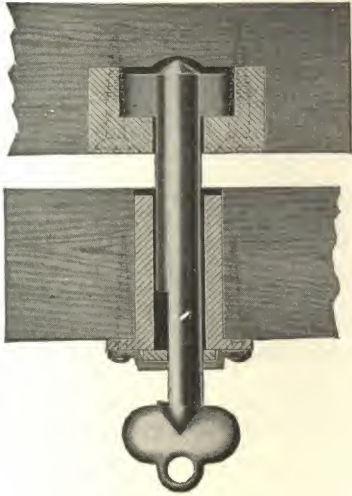
Lock is inserted in the stile of door, the key passing entirely through the stile of door on the inside of track and into the keeper in the stile of the outside door. When used with single doors, this bolt passes into the keeper inserted in the jamb.

By giving key quarter-turn to left, latch drops by gravity, holding the key to prevent it from turning or being removed.

Doors should lap from  $4\frac{1}{2}$  to 6 inches for this bolt.

Finish, black enamel. Packed, one in metal-edged box, complete with bolts and screws.

Weight, each 6 lbs.



### List Price

No. 518 Parallel Warehouse Door Bolt. Each.....\$2.00

Discount.....

## R-W No. 519 Parallel Door Gravity Bolt

**For Heavy Freight or Warehouse Parallel Doors As Illustrated on Pages 240 to 243**

Bolt made of malleable iron and mounted on steel plate.

No. 519-1, is shown in illustration. Bolt drops by gravity through slot in guide strip and is automatically locked in place.

No. 519-2 has an additional pressure spring to hold bolt in raised position while door is being moved

Length of bolt on door, 15 inches, 17 inches over all, when in locked position.

Finish, black enamel. Packed in bulk with bolts and screws.

Weight, per hundred, 400 pounds.

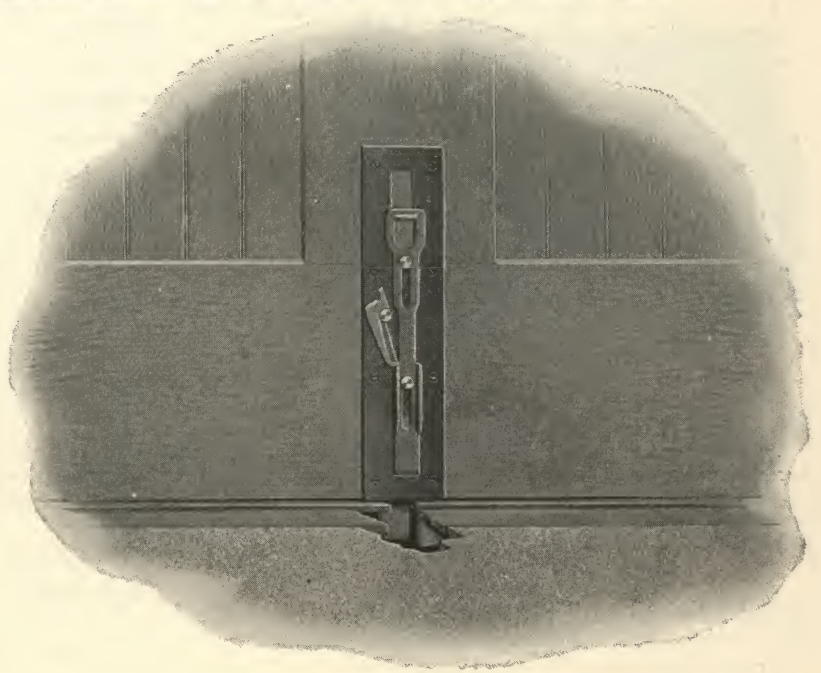
No. 519-1 always sent unless otherwise specified.

### List Price

No. 519-1 Parallel Door Gravity Bolt.  
Each.....\$2.00

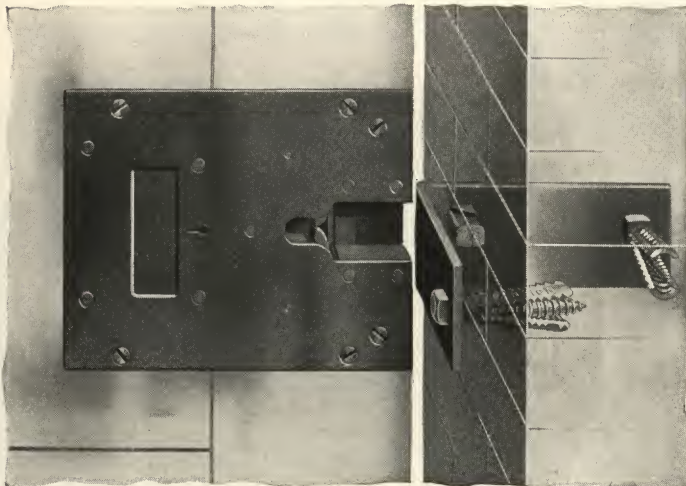
No. 519-2 Parallel Door Gravity Bolt.  
Each.....\$2.25

Discount.....



Locks Doors Automatically, from Inside Only





## R-W No. 515 Sliding Door Lock

Patented

For Fire Doors, Warehouse and Factory Doors that  
Lap the Wall

Made of steel with malleable jaws.

Designed especially for doors that lap wall up to 4 inches. Suitable for tin clad fire doors.

Regular for 2½-inch doors. Can furnish for 1¾-inch doors on special order.

Made flush with the door on both sides and can be operated from both outside and inside. The act of closing the door latches it, and to unlatch it simply press back the hand-hole or flush pull cover with the fingers. This is a valuable feature, for with other sliding door locks it is necessary to use a key not only to unlock the door but also each time it is unlatched. The key is used only to lock or unlock the door.

the door. To latch or unlatch no key is necessary, the action being automatic with the opening or closing of the door.

The use of the blind screw studs on the outside makes lock practically burglar-proof. They are reversible, for either right or left-hand doors, single or double.

This lock serves as a lock, latch, and door pull combined. The door, not the lock receives the shock when door strikes jamb. The strike or keeper is especially adapted for attachment to brick, concrete or masonry. For warehouse doors lapping, 2½ inches or less, where keeper is attached to wood or metal, see No. 510 lock, page 469.

Size of plate, on wall side, 7 inches high by 8¾ inches wide.

Packed one in metal-edge box, complete with screws, keeper and two keys. Keys are numbered for twelve changes to each dozen locks.

Weight, per hundred, 750 pounds.

### List Price

No. 515 Lock, regular finish, dead black. Each ..... \$5.00

Discount .....

## R-W No. 520 "Nobreak" Sliding Door Latch

Patented

For Garages

Stables

Factories

Warehouses

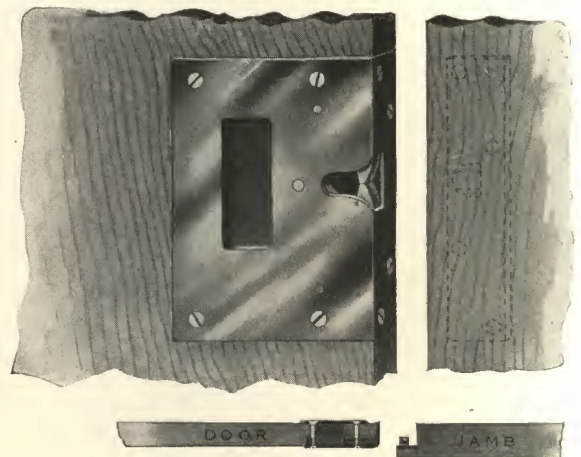
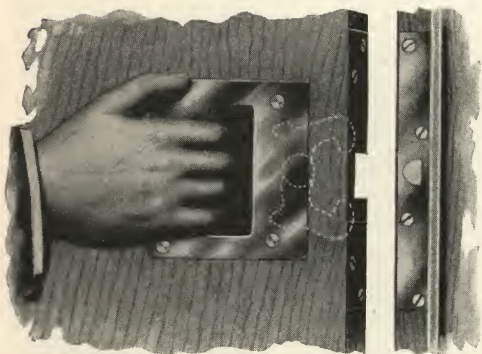
Boat Houses

Granaries, Etc.

For Both Single

and Double

Doors



Made of steel with malleable jaws. The Nobreak latch is made to fit flush in the door and can be operated from both sides. It is reversible for either right or left-hand doors.

The Nobreak serves as a latch and pull combined and is indestructible. There are no projections on which to catch harness or clothing. Adjustable for doors 1¾ to 2½ inches thick. Width of latch, 5⅛ inches. Height, 6⅝ inches.

Packed one in metal-edged box, complete with screws and templet for setting lock. Regularly furnished with strike for single doors. Can be furnished with strike for double doors if specified.

On panel doors outer stiles should be no less than 6 inches wide. Weight, per hundred, 458 pounds.

### List Price

No. 520 Latch, regular finish, dead black. Each ..... \$1.35

No. 520 Latch, bronze plated or old copper. Each ..... 2.30

Prices on solid metal quoted on application.

Note—Latches sent for single doors, unless otherwise specified.

Discount .....

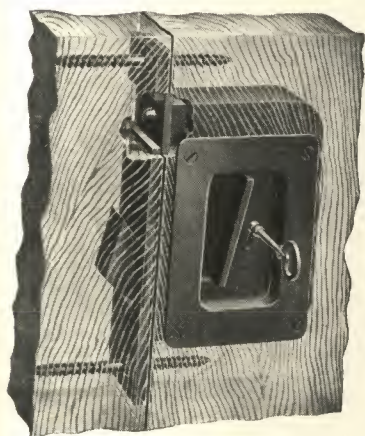


R-W No. 525

## "Faultless" Sliding Door Lock

For Garages, Stables, Warehouses, Factories, Etc.

For Both Single and Double Doors



Patented

Made of steel and malleable iron.

For sliding doors,  $1\frac{3}{4}$  inches thick or thicker, also suitable for right angle doors. Twenty-eight changes of keys. Lock, latch and flush door pull combined. Operated from either side of door. For single or double doors. Latch is released and door pulled open by same movement.

Latch piece and trip made of malleable iron. Steel flush cups. Steel keeper plate.

Mortise case,  $4\frac{3}{4}$  inches high by  $3\frac{3}{4}$  inches wide by  $\frac{7}{8}$  inch thick.

Maximum lap of door over jamb, with which this lock can be used is 1 inch.

Finish, regular, rustless dead black. Other finishes can be furnished on application. Write for prices.

Packed, one lock in metal-edge box, complete with screws and templet for setting lock. Weight, per hundred, 375 pounds.

### List Price

No. 525 Lock, regular finish, dead black. Each.....\$2.50

Discount.....

R-W No. 510

## "Nobreak" Sliding Door Lock

For Garages, Stables, Warehouses, Factories, Boat Houses, Etc.

For Both Single and Double Doors



Patented

Made of steel with malleable jaws.

The "Nobreak" Lock is made flush with the door on both sides and can be operated from both outside and inside. The act of closing the door latches it, and to unlatch it simply press back the hand-hole or flush pull cover with the fingers. The key is used only to lock or unlock the door. To latch or unlatch no key is necessary, the action being automatic with the opening or closing of the door.

The use of the blind screw studs on the outside makes lock practically burglar-proof. They are reversible, for either right or left-hand doors, single or double.

The "Nobreak" serves as a lock, latch and door pull combined. The door, not the lock receives the blow when door strikes jamb. There are no projections on which to catch harness or clothing.

Maximum lap of door over jamb, with which this lock can be used is  $2\frac{1}{2}$  inches.

No. 1 size adjustable for doors,  $1\frac{3}{4}$  to  $2\frac{1}{4}$  inches; No. 2,  $2\frac{1}{2}$  to 3 inches thick. Width of lock,  $5\frac{1}{8}$  inches.

Packed one in metal-edge box, complete with screws, strike plate for doors, two keys and templet for setting lock.

Special strike furnished for double doors. Keys are numbered for twelve changes to each dozen locks. On panel doors outer stiles should be 6 inches wide. Weight, per hundred, 625 pounds.

### List Price

No. 510 No. 1 or No. 2 Lock, regular finish, dead black. Each.....\$3.00

Note—Locks sent for single doors in No. 1 size, unless otherwise specified.

Discount.....

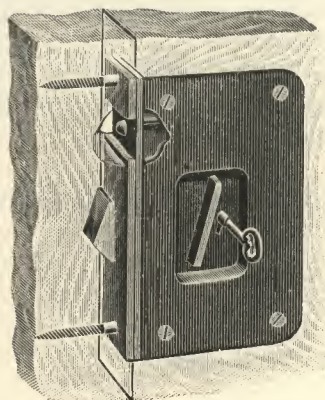


R-W No. 825

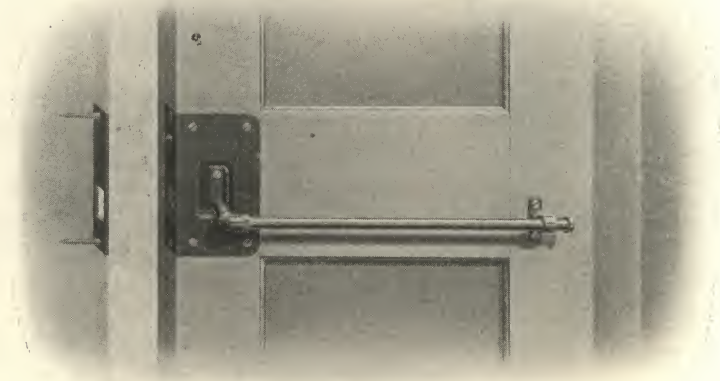
Patented

## Sliding Door Lock

For Garage, Elevators, Warehouses, Factories, etc. For Both Single and Double Doors  
Half Mortise Type. Made in Two Styles



No. 825-1—Right Hand



No. 825-2—Right Hand

No. 825-1 made of steel and malleable iron. No. 2 made of steel and malleable iron and furnished with brass handle bar.

For sliding doors  $1\frac{3}{8}$  inches thick or thicker. Maximum thickness of door,  $2\frac{1}{2}$  inches. Twenty-eight changes of keys. Lock, latch and flush door pull combined. No. 825-1 regularly furnished with flush cup for opposite side of door. Can be furnished special to be opened from the outside with key only, in which case state whether for right or left-hand. For single or double doors. Latch is released and door pulled open by same movement.

Latch-piece and trip made of malleable iron. Steel case and door plate. Steel keeper plate.

Mortise case,  $4\frac{3}{4}$  inches high by  $3\frac{3}{4}$  inches wide by  $\frac{7}{8}$  inch thick.

Maximum lap of door over jamb, with which this lock can be used is 1 inch.

Finishes: regular, rustless dead black; bronze plated.

Packed one lock in metal-edged box, complete with screws and templet for setting lock. Weight, per hundred, 325 pounds.

No. 825-2 lock is covered by above description and in addition to which we furnish brass handle bar, extending entirely across the door. Handle reversible right or left. No. 825-2 regularly furnished to open from inside only. Special to open from opposite side with key, in which case state whether for right or left-hand.

This type of lock is especially designed for use on light elevator doors. Weight, per hundred, 550 pounds.

### List Price

No. 825-1 Lock, regular finish, dead black.	Each.....	\$3.00
No. 825-1 Lock, bronze plated.	Each.....	4.60
No. 825-2 Lock, regular finish, dead black.	Each.....	4.60
No. 825-2 Lock, bronze plated.	Each.....	6.35

Prices on solid metal quoted on application.

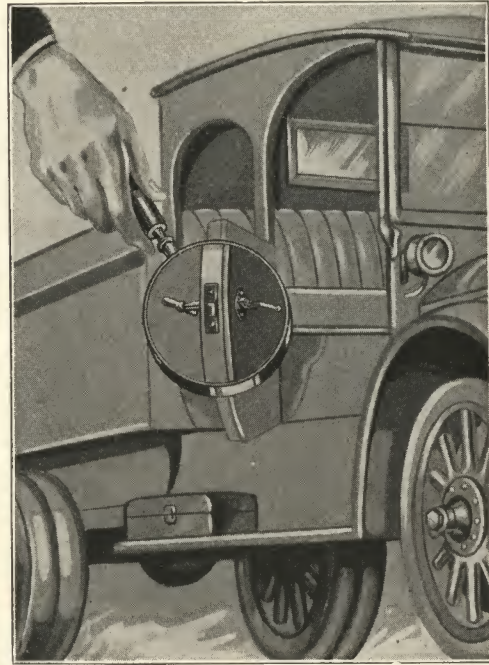
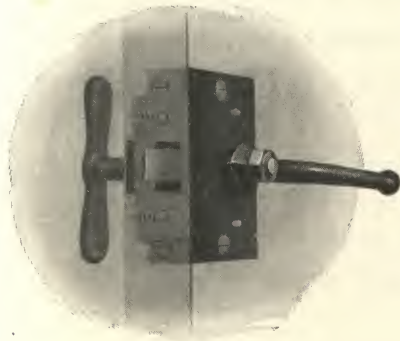
### Directions for Ordering

No. 825-1; State if regular lock or special to open from outside with key only is wanted. If special, state whether right hand (as in cut) or left hand. No. 825-2; State if regular lock or special to open from outside with key is wanted, right (as in cut) or left hand, give width of door Unless otherwise stated, regular locks will be sent.

Discount.....



## R-W No. 424 Auto Truck Door Latch



While these latches were primarily designed for cab doors of auto trucks yet many are used for screen doors, cellar doors, yard gates, in fact any place where a spring latch can be used.

Simplicity of construction of latch is such as to warrant same not to get out of order or give trouble of any kind.

Guaranteed to be free from any defect in material or of workmanship. Furnished in two sizes.

Latches are manufactured from a superior quality of sheet metal made suitably for latch construction.

"T" Handles and inside Lever are of malleable iron, well finished with a good heavy coat of black baked japan.

Latches are provided with escutcheon plates. These are essential to the appearance as well as to the wear. Many competing latches are not so provided.

Tortion type spring is used instead of the compression or tension type. Tortion spring is the ideal style to use in latch mechanism.

"T" Handles are furnished in two different styles: (a) One with a square shank,  $3\frac{1}{8}$  inches long, minus the thread and nut. This feature is to accomodate many conditions where the thickness of doors vary too much to allow the tapered shank to be used. This shank may be

cut off at any desired length and riveted. It is not provided with threads and a nut. (b) The other has a square shank  $1\frac{7}{8}$  inches long, with a  $\frac{3}{8}$  inch taper at front end next to threaded part. This feature allows the lever handle to wedge itself tightly on to the shank by screwing up the nut.

### List Price

No. 424-1—Over-all dimensions of casing is 2x3 inches. Weight each, 13 oz.	Each.....	\$ .80
No. 424-2—Over-all dimensions of casing is $2\frac{1}{2}$ x3 $\frac{1}{4}$ inches. Weight each, 1 lb.	Each.....	1.10

### Discount

**Note**—Each latch furnished complete with Keeper and Screws. In ordering be sure to state whether "T" Handle with Straight Shank without nut is desired or whether "T" Handle with Tapered Shank with nut is desired.

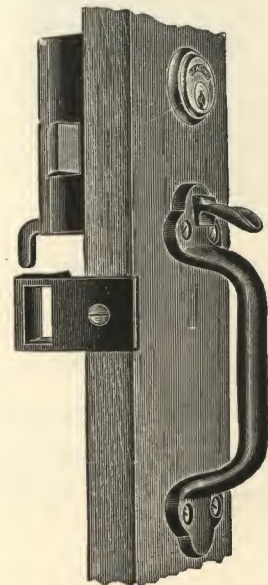
## R-W No. 650 Rim Lock

### For Garage Entrance Doors

This lock is not expensive, but a very satisfactory one for locking the swinging entrance doors in "Slidetite", "Round Runner" and other R-W installations. Adjustable for doors up to  $2\frac{1}{2}$ " thick.

It is reversible and may be used on either in or out swinging doors. Cylinder lock is furnished with three keys. Locks from outside of garage only.

The case is 4" wide,  $4\frac{3}{8}$ " high and  $1\frac{1}{4}$ " thick. Length over all of handle on outside is  $8\frac{3}{8}$ ". A thumb piece is furnished for the outside and lifter for the inside. Black japan finish. Furnished with keeper and all screws necessary to install. Weight, per hundred, 400 pounds.



R-W No. 650 Rim Lock. Each.....	\$5.50
---------------------------------	--------

### Discount





No. 350 Latch

## R-W No. 350 Latch

For Garage Entrance Doors

R-W No. 350 Latch. Japan finish. Furnished with two handles and latch thumb lift.

Mortise case  $2\frac{3}{4}$  inches high,  $2\frac{3}{4}$  inches deep,  $\frac{11}{16}$  inch thick. Face plate  $4\frac{1}{2}$  inches long by 1 inch wide. Distance from face of door to center of handle  $1\frac{3}{4}$  inches.

Packed one latch in metal-edged carton. Weight, 4 lbs.

### List Price

One No. 350 Latch, complete..... \$3.00

Discount.....



No. 550 Cylinder Lock

## R-W No. 550 Cylinder Lock

For Garage Entrance Doors

R-W No. 550 Cylinder Lock. This cylinder lock is furnished with two handles, latch thumb lift and two keys as illustrated. It is made with one cylinder for locking doors from outside only; or with two cylinders for locking doors from both sides. The face of the lock and the cylinders are made of solid polished bronze. The mortise case is finished in black japan and is  $5\frac{1}{2}$  inches high,  $3\frac{3}{4}$  inches deep,  $\frac{3}{4}$  inch thick. The face of the lock is  $7\frac{3}{4}$  inches long by  $1\frac{1}{4}$  inches wide. The distance from the face of the door to the center of the handle is  $2\frac{3}{4}$  inches. Handles are finished in polished brass or japan. Packed one lock in metal-edged carton. Weight, 5 lbs.

Note—In ordering, state thickness of door so that we may furnish cylinder of proper length.

### List Price

One No. 550 Cylinder Lock, complete with one cylinder only and polished brass handles.....	\$24.00
One No. 550 Cylinder Lock, complete with one cylinder only and japanned handles.....	20.00
One No. 550 Cylinder Lock, complete with two cylinders and polished brass handles.....	30.00
One No. 550 Cylinder Lock, complete with two cylinders and japanned handles.....	25.00

Discount.....



## R-W No. 524 Cane Bottom Bolt

An extra heavy, all steel bottom bolt for garage or warehouse doors.

As shown in illustration bolt drops by gravity when the handle is lifted out of the socket. The bottom keeper has an oval hole which provides for the shrinking or swelling of the door. It is suitable for use with either wood or concrete floors. The keeper is installed with the flange at the top in wood floors, but in concrete floors, the keeper is installed with the flange at the bottom to serve as an anchor.

Can be used with Nos. 514 or 414 top bolts.

No. 0— $\frac{1}{2}$ inch thick by 12 inches long.	Weight $1\frac{3}{4}$ lbs. each
No. 1— $\frac{5}{8}$ inch thick by 18 inches long.	Weight 3 lbs. each.
No. 2— $\frac{3}{4}$ inch thick by 24 inches long.	Weight $4\frac{1}{2}$ lbs. each.
No. 3— $\frac{7}{8}$ inch thick by 24 inches long.	Weight $6\frac{1}{2}$ lbs. each.

### List Price

	Black	Galvanized
No. 524-0 Cane Bottom Bolt, per dozen.....	\$ 7.50	\$10.50
No. 524-1 Cane Bottom Bolt, per dozen.....	9.00	12.00
No. 524-2 Cane Bottom Bolt, per dozen.....	12.00	15.00
No. 524-3 Cane Bottom Bolt, per dozen.....	17.00	20.00

Discount.....

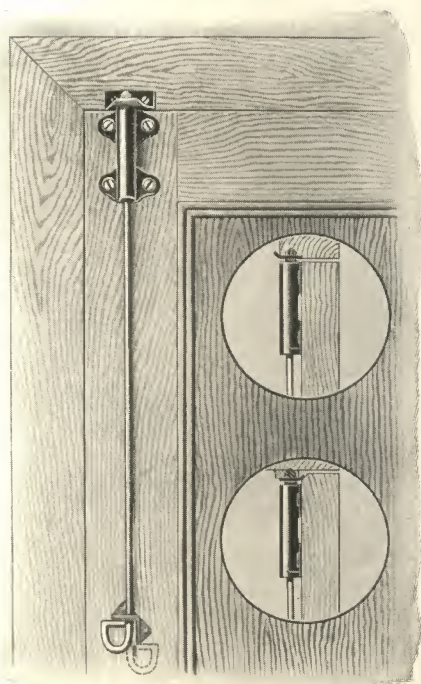
## R-W No. 414 Self Aligning Top or Bottom Spring Bolt

Designed especially for garage or warehouse use. Can be used on sliding doors, right angle doors, sliding-folding doors, or hinged doors swinging in or out. Made entirely of steel.

Made in two sizes: No. 414-1 for medium size doors; No. 414-2 for large and heavy doors. Both sizes are operated by a steel rod. For the larger size the rod is made in two sections for convenience in packing in a shorter box. A two-foot extension can be furnished when bolt is used on the top of extra high doors. These are not furnished regularly, however, and if desired, must be specified in order.

The end of the bolt proper is pointed so that it will easily enter the hole in the keeper, even if the door is a little out of line. The spring is strong enough to force the bolt into the keeper under ordinary conditions, but it can also be pushed in when necessary.

The guide bracket is also a hold-open bracket. By giving the loop handle one-quarter turn and catching it beneath the vertical flange of guide bracket, bolt is held in retracted position.



Used at Top of Door

### No. 414-1 Dimensions

Housing,  $4\frac{5}{8}$ " long. Bolt proper,  $\frac{3}{4}$ " in diameter. Rod,  $\frac{5}{8}$ " in diameter. Length overall, 26". Weight,  $2\frac{3}{4}$  lbs. each.

### No. 414-2 Dimensions

Housing 9" long. Bolt proper,  $\frac{7}{8}$ " in diameter. Rod,  $\frac{3}{8}$ " in diameter. Length overall, 36". Weight,  $3\frac{1}{2}$  lbs. each.  
Packed one in a box, with two keepers and necessary screws.

### List Price

No. 414-1—Top or Bottom Spring Bolt, black enamel finish,	
Per dozen.....	\$10.50



Used at Bottom of Door

No. 414-1—Top or Bottom Spring Bolt, galvanized finish.	
Per dozen.....	12.50
No. 414-2—Top or Bottom Spring Bolt, black enamel finish.	
Per dozen.....	17.00
No. 414-2—Top or Bottom Spring Bolt, galvanized finish.	
Per dozen.....	23.00
Two-Foot Extensions, for No. 2 size only, black enamel finish,	
Each.....	1.00
Two-Foot Extensions, for No. 2 size only, galvanized finish,	
Each.....	1.15

Discount.....



## R-W No. 2120 Top or Bottom Spring Bolt

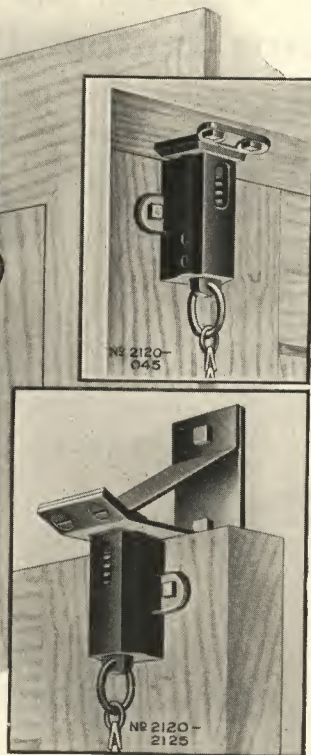
Extra heavy spring bolt designed for warehouse or other heavy doors. Housing 5 inches long, made of heavy malleable iron. Bolt proper  $\frac{7}{8} \times 1\frac{1}{8}$  inch malleable iron. Chain 36 inches long with ring and clip. Bolt projects  $2\frac{1}{8}$  inch from face of door. Can be furnished with either of the three styles of keepers illustrated. **Be sure to specify which style is desired.** In specifying No. 2125 Keeper always state thickness of door. Finish, black japan. Packed in bulk. Weight, each, with keeper about 8 lbs.

### List Price

No. 2120-045 Bolt, complete with keeper.	Each.....	\$2.70
No. 2120-050 Bolt, complete with keeper.	Each.....	2.70
No. 2120-2125 Bolt, complete with keeper.	Each.....	4.00

Discount.....

No. 2120  
Used as Top Bolt,  
Showing Various  
Applications of  
Keepers



## R-W

## No. 434-C and No. 434-T Top Spring Bolts

These two bolts, Nos. 434-C and 434-T, are similar to the No. 2120 bolt (illustrated at top of page) except that these two bolts project  $1\frac{5}{16}$  inches from face of door instead of  $2\frac{1}{8}$  inches.

The attaching lugs of the No. 434-C bolt are at the center of the housing while the lugs of the No. 434-T bolt are at the top.

Three styles of keepers are shown, any of which can be furnished with either bolt. Always specify which keeper is desired by adding the letter A, B or D to the bolt number. Finish, black japan. Packed in bulk. Weight with keeper about 7 pounds.

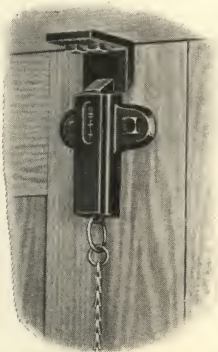
### List Price

No. 434-C—A* Bolt.	Each.....	\$2.70
No. 434-C—B* Bolt.	Each.....	2.70
No. 434-C—D* Bolt.	Each.....	2.70
No. 434-T—A* Bolt.	Each.....	2.70
No. 434-T—B* Bolt.	Each.....	2.70
No. 434-T—D* Bolt.	Each.....	2.70

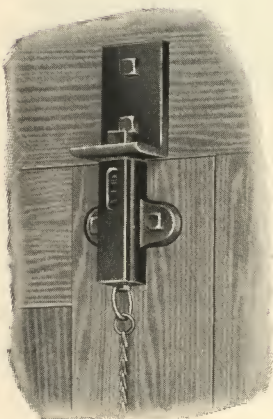
Note—\*Indicates style of keeper.

Discount.....

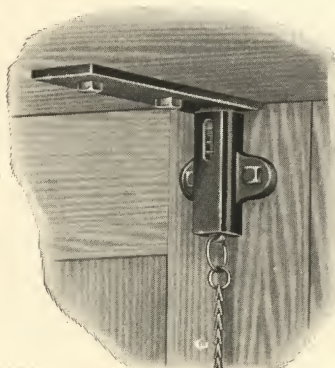
No. 434-T Bolt  
With Keeper B



No. 434-C Bolt  
With Keeper A



No. 434-C Bolt  
With Keeper D





## R-W No. 514 Top or Bottom Spring Bolt

### For Garage Doors

Spring Bolt, designed especially for garage use. Can be used on sliding doors, right angle doors, sliding-folding doors, hinged doors, swinging in or out. Made in two sizes. Reversible.

**No. 514-1**—The Housing is made of steel  $4\frac{5}{8}$  inches long. Bolt proper  $\frac{5}{8}$  inch square end, and  $5\frac{1}{2}$  inches long over all. Chain 24 inches long with ring attached to end.

**No. 514-2**—The Housing is made of heavy steel, 9 inches long. Bolt proper  $\frac{3}{4}$  inch square end, and 10 inches long over all. Chain 36 inches long with ring attached to end.

Finish, black enamel. Packed regularly six in metal-edged box, complete with screws, two keepers, chain for each bolt.

Weight, per half dozen, No. 514-1, 7 lbs.

Weight, per half dozen, No. 514-2, 14 lbs.

### List Price

No. 514-1 Top and Bottom Bolt. Per dozen . . . \$ 9.50

No. 514-2 Top and Bottom Bolt. Per dozen . . . 16.00

Discount.....

## R-W No. 317 Garage Door Bolt

Same as the 317 x 527 Bolt, illustrated on the right, except the operating handle and lug which are attached to the outside of the door are, in this case, omitted. Black enamel finish. Packed one in a box with screws. Weight, each,  $3\frac{3}{4}$  pounds.

### List Price

No. 317 Garage Door Bolts. Each . . . . . \$3.40

Discount.....

## R-W No. 317 x 527 Garage Door Bolt

Padlock  
Is Not  
Furnished



No. 527 Exterior Handle and  
Lug for Outside of Door

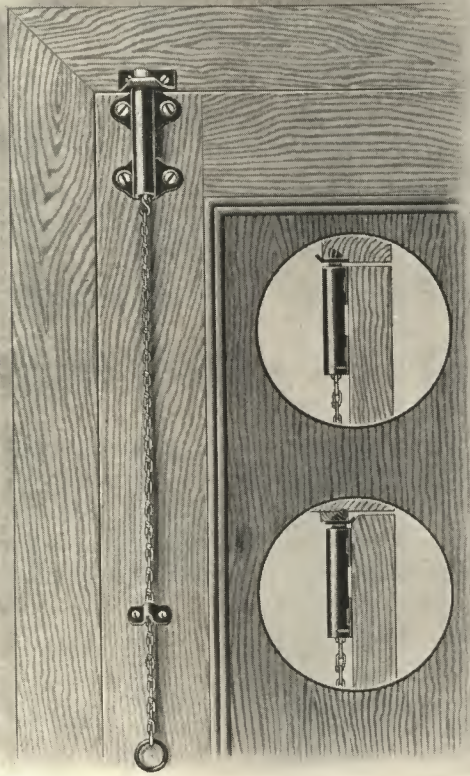
No. 317 x 527  
Garage Door Bolt

Consists of top and bottom spring bolts connected together by chain with an operating handle for center of door. In addition an exterior operating handle and lug for the outside of the door is provided. Bolt should be applied to inside of door but may be operated and locked by padlock from outside. Padlock is not furnished. Packed in box with screws. Finish, black enamel. Weight,  $4\frac{1}{2}$  pounds.

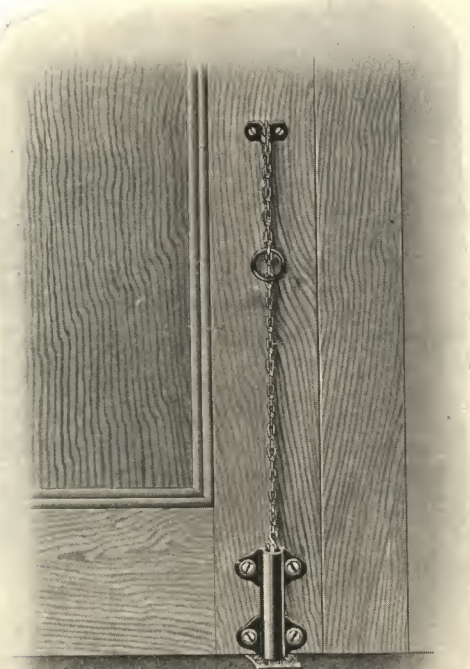
### List Price

No. 317 x 527 Bolt, Each . . . . . \$5.40

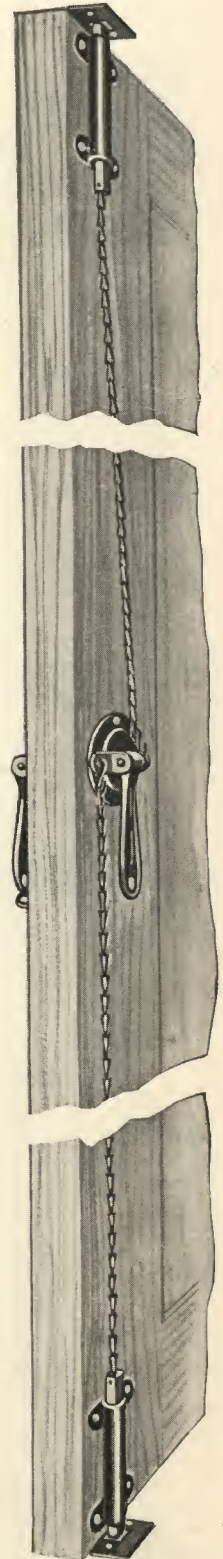
Discount.....



No. 514—Used as Top Bolt, Showing  
Various Applications of Keepers



No. 514—Used as Bottom Bolt





## R-W No. 517 Garage Cremone Bolt

Patented

Locks doors at both top and bottom with one movement of the lever handle.

So constructed that when bolted or unbolted the ends of connecting rods, where attached to the lever handle, are off center so that bolt maintains its position by gravity and cannot be changed except by moving the lever handle.

Connecting rods are made in sections so that the entire bolt can be packed in a convenient sized box.

Made in one size, for doors up to 9 feet high. Extra sections 18 inches long can be furnished for higher doors.

Packed regularly with screws and top and bottom keeper in metal edged box 21 inches long. The Patented Bottom Keeper is made with a lug against which the outside surface of the door strikes so that the bolt will always be in line with the opening in the keeper when the door is pushed tightly shut. Keeper is adjustable for different thicknesses of doors. Extra Flat Bottom Keeper is furnished so that the doors may be locked in open position.

### List Price

No. 517 Bolt, adjustable for doors up to 9 feet high. Weight, each 10 lbs.....\$5.60  
Extra Section, 18 inches long. Weight, each 1 lb..... .80

Discount.....

### Directions for Ordering

State the following: **First**—Height of door. **Second**—Whether sliding or swing door. **Third**—If swing door, does same overlap jamb or set in flush? **Fourth**—Whether doors swing in or out.

## R-W No. 517 x 527 Garage Cremone Bolt

This bolt consists of a No. 517 Bolt, as shown at left, plus a 527 Exterior Handle and Lug, as shown at the right.

The 527 handle permits the 517 bolt to be operated from the outside of the door.

A padlock may be used with the handle and lug, thus locking the bolt. The padlock is not furnished. Illustration shows how it is applied.

### List Price

No. 517 x 527 Bolt, adjustable for doors up to 9 feet high.  
Weight, one each complete, 10¾ lbs. Each, complete.....\$8.00  
Extra Section, 18 inches long. Weight, each 1 lb..... .80

Discount.....

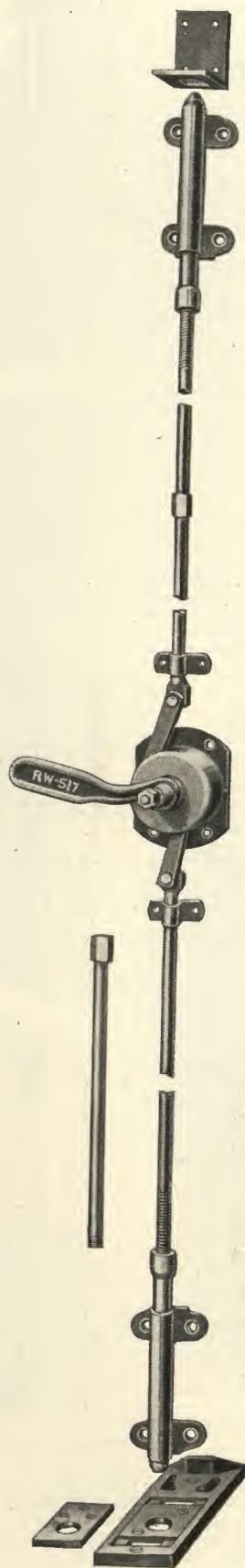
### Directions for Ordering

State the following: **First**—Height of door. **Second**—Whether sliding, sliding-folding, or swing door. **Third**—If swing door, does same overlap jamb or is it set in flush? **Fourth**—Whether doors swing in or out.



No. 527 Exterior Handle and Lug for Outside of Door. To operate and lock bolt from the outside.

Attach padlock as shown. Padlock is not furnished.



R-W No. 517



## R-W No. 517 x 427

### Cremone Bolt

This bolt consists of a 517 Cremone Bolt, see opposite page, plus a high grade cylinder lock, together with an offset locking attachment and an outside operating handle.

The view in the panel shows how the cylinder lock's barrel and the operating handle appear on the outside of the door.

These attachments permit the bolt to be not only operated but also locked from the outside of the door.

Packed complete in metal edged box.

Weight, complete, 12 lbs.

#### List Price

No. 517 x 427 Bolt, adjustable for doors up to 9 feet high. Each complete.....\$16.00  
Extra Section, 18 inches long. Weight each 1 lb..... .80

#### Discount.....

#### Directions for Ordering

State the following: **First**—Height of door. **Second**—Whether sliding, sliding-folding, or swing door. **Third**—If swing door does same overlap jamb or set in flush? **Fourth**—Whether doors swing in or out.

## R-W No. 1335

### Fire Station Door Bolt

Fire station doors require cremone bolts which are not only exceptionally rugged but which may be operated by a quick jerk on a rope from the drivers' seat of a fire truck.

The bolt to the right fulfills these requirements. It consists of a regular 517 Cremone Bolt, see opposite page, with a rope operated unlocking attachment in place of the regular handle.

For full description of the 517 bolt see opposite page.

Packed complete, less rope, in metal-edged box.

Weight, each, 11½ lbs.

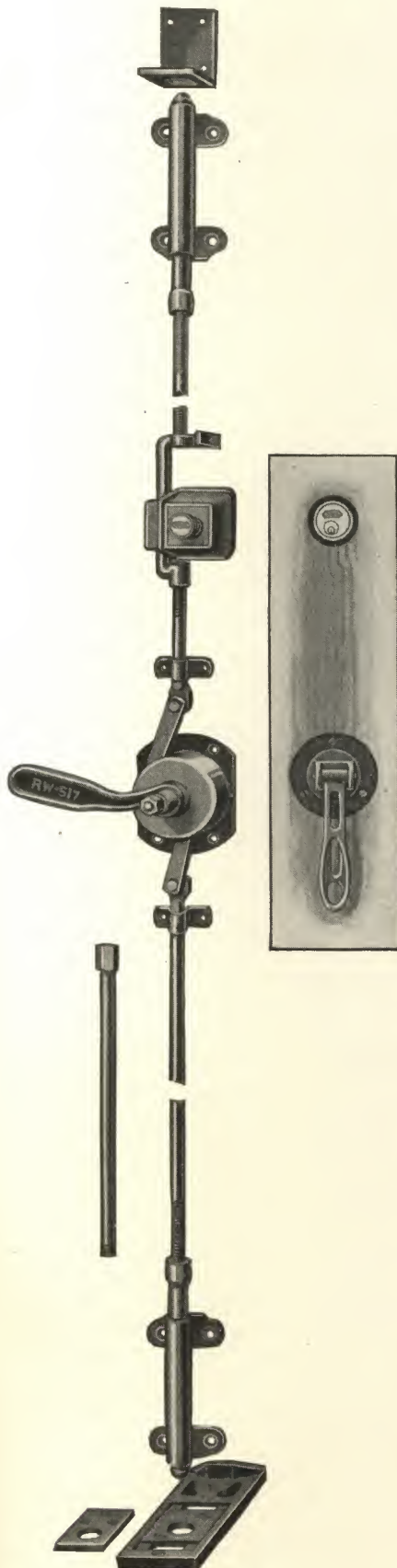
#### List Price

No. 1335 Bolt, adjustable for doors up to 9 feet high. Each.....\$8.50  
Extra Section, 18 inches long. Weight each 1 lb..... .80

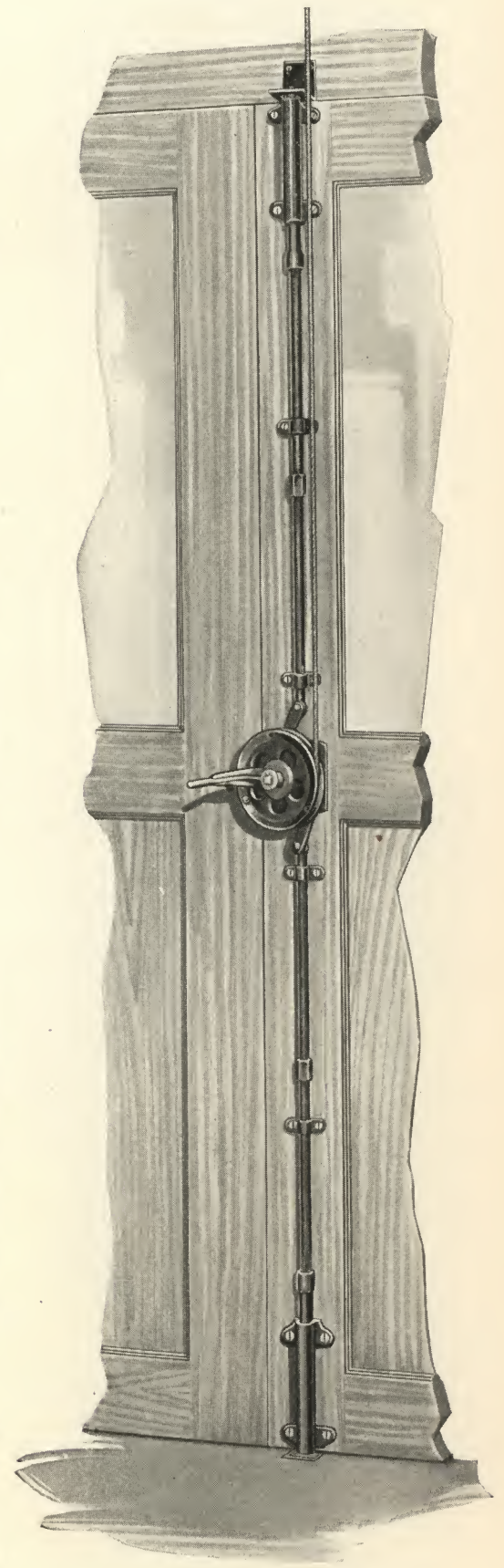
#### Discount.....

#### Directions for Ordering

State the following: **First**—Height of door. **Second**—Whether sliding-folding or swing door. **Third**—If swing door does same overlap the jamb or is it set in flush?



No. 517 x 427  
Cremone Bolt



No. 1335  
Fire Station Door Bolt



## R-W No. 617 Garage Cremone Bolt

Patented

A simple, substantial, convenient and ornamental Cremone door bolt particularly designed for use on garage doors equipped with "Slidetite" folding-sliding garage door hardware, or garage doors hung on hinges.

The No. 617 Bolt is made in three principal sections; the center or locking section, and the top and bottom or adjustable bolt sections—the three sections being united by 1/2-inch connecting rods.

The bolt will retain its position positively either locked or unlocked—cannot be opened by jarring. It is made of steel, finished in black enamel.

Complete bolt for single or double "Slidetite" or hinged doors swinging inside of building is packed regularly in a neat and compact metal-edged fibreboard box 20 1/2 inches long. Special keepers required for doors swinging out. Bolt as regularly packed is adjustable for doors up to 10 feet high. Extra sections 18 inches long furnished as ordered for higher doors. The bolt can be applied to doors with stiles as narrow as 3 1/2 inches.

The patented Bottom Keeper is made with lug against which the outside surface of the door strikes so that the bolt will always be in line with the opening in the keeper when the door is pushed tightly shut. Adjustable for different thicknesses of doors.

Extra Flat Bottom Keeper included so that the doors may be locked in open position.

Movement of bolt is 1 1/4 inches in each direction. Twelve-inch adjustment is provided in top and bottom sections. Permanent adjustment is made when bolt is applied to the door.

The base plate of the center section is 12 3/4 inches long by 3 3/8 inches wide. The base plate of top and bottom sections is 17 1/2 inches long by 2 7/8 inches wide. Maximum extension from surface of door is 2 3/4 inches.

### List Price

R-W No. 617 bolt packed complete as above, adjustable for doors up to 10 feet high, shipping weight, 14 1/2 pounds, each.....\$9.50  
Extra 18-inch sections for lengthening No. 617 bolt to accommodate higher doors, shipping weight, 1 pound, each..... .80

Discount.....

## R-W No. 617 x 527 Garage Cremone Bolt

Patented

This bolt consists of a No. 617 Bolt, as shown at left, plus a 527 Exterior Handle and Lug, as shown at the right.

The 527 handle permits the 617 bolt to be operated from the outside of the door.

A padlock may be used with the handle and lug, thus locking the bolt. The padlock is not furnished. Illustration shows how it is applied.

### List Price

No. 617 x 527 Bolt, adjustable for doors up to 10 feet high, shipping weight, 15 1/4 pounds. Each.....\$11.50  
Extra 18-inch sections for lengthening the bolt to accommodate higher doors. Shipping weight, 1 pound, each..... .80

Discount.....

### Directions for Ordering

State the following: **First**—Height of door. **Second**—Whether sliding-sliding-folding, or swing door. **Third**—If swing door does same overlap jamb or is it set in flush? **Fourth**—Whether doors swing in or out.



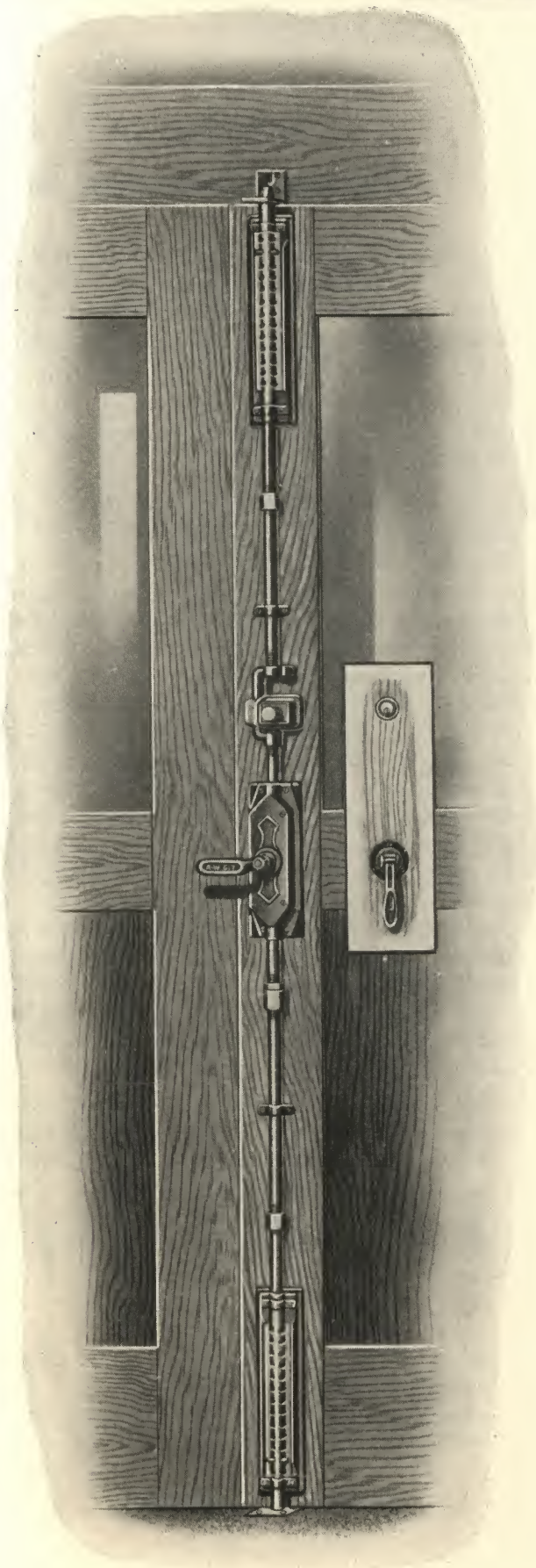
No. 527 Exterior Handle and Lug for Outside of Door. To operate and lock bolt from the outside.

Attach padlock as shown.

Padlock is not furnished.

No. 617





## R-W No. 617 x 427 Garage Cremone Bolt

Patented

This bolt consists of a 617 Cremone Bolt, see opposite page, plus a high grade cylinder lock, together with an offset locking attachment and an outside operating handle.

The view in the panel shows how the cylinder lock's barrel and the operating handle look on the outside of the door.

These attachments permit the bolt to be not only operated but also locked from the outside of the door.

An exceptionally high grade cremone bolt, one one that is used extensively on the doors of the better class of garages.

Packed complete in metal-edged box.

Weight, complete 16 lbs.

### List Price

No. 617 x 427 Bolt, adjustable for door up to 10 feet high.	
Each, complete.....	\$20.00
Extra 18 inch sections for lengthening bolt to accommodate higher doors, weight, 1 pound, each.....	.80

Discount.....

### Directions for Ordering

State the following: **First**—Height of door. **Second**—Whether sliding, sliding-folding, or swing door. **Third**—If swing door, does same overlap jamb or is it set in flush? **Fourth**—Whether doors swing in or out.



## R-W No. 717 Garage Cremone Bolt

A simple substantial, convenient and ornamental Cremone door bolt particularly designed for use on garage doors equipped with "Slidetite" folding-sliding garage door hardware, or garage doors hung on hinges.

The No. 717 is made in three principal sections; the center or handle section, and the top and bottom or adjustable bolt sections—the three sections being united by  $\frac{1}{2}$  inch connecting rods.

The bolt will retain its position positively either locked or unlocked—cannot be opened by jarring. It is made of steel, finished in black enamel.

Complete bolt for Slidetite or hinged doors swinging inside of buildings is packed regularly in a neat and compact metal-edged fibre-board box. Bolt as regularly packed is adjustable for doors up to 9' high. Extra sections 18" long furnished as ordered for higher doors. This bolt can be applied to doors with very narrow stiles. Can only be used on out-opening doors when special keepers are furnished. The top and bottom sections are actuated by a pin operating in a spiral slot, so that rotation of the rod in one direction will retract the end members and rotation in the opposite direction will project or extend them. It automatically adapts itself to any height door up to 9' by adjusting the rod at the ends of the bolt. If desired, we can furnish staple so that this bolt can be padlocked. However, it is necessary to do this on the inside of the garage, making it necessary to have a separate entrance door in the case of an opening with two swinging doors. Weight each, 12 lbs.

The keeper is adjustable. Movement of bolt is  $1\frac{1}{8}$  inches in each direction.  $7\frac{1}{2}$  inches adjustment is provided in top and bottom section. Permanent adjustment is made when bolt is applied to the door. The base plate of top and bottom sections is  $3\frac{3}{4}$  inches long x  $2\frac{1}{2}$  inches wide. Maximum extension from surface of door is  $1\frac{3}{8}$  inches.

### List Price

R-W No. 717 Bolt, packed complete as above, adjustable for doors up to 9' high, each.....	\$5.60
Extra 18" sections for lengthening No. 717 Door Bolt to accommodate higher doors, each.....	.80

Discount.....



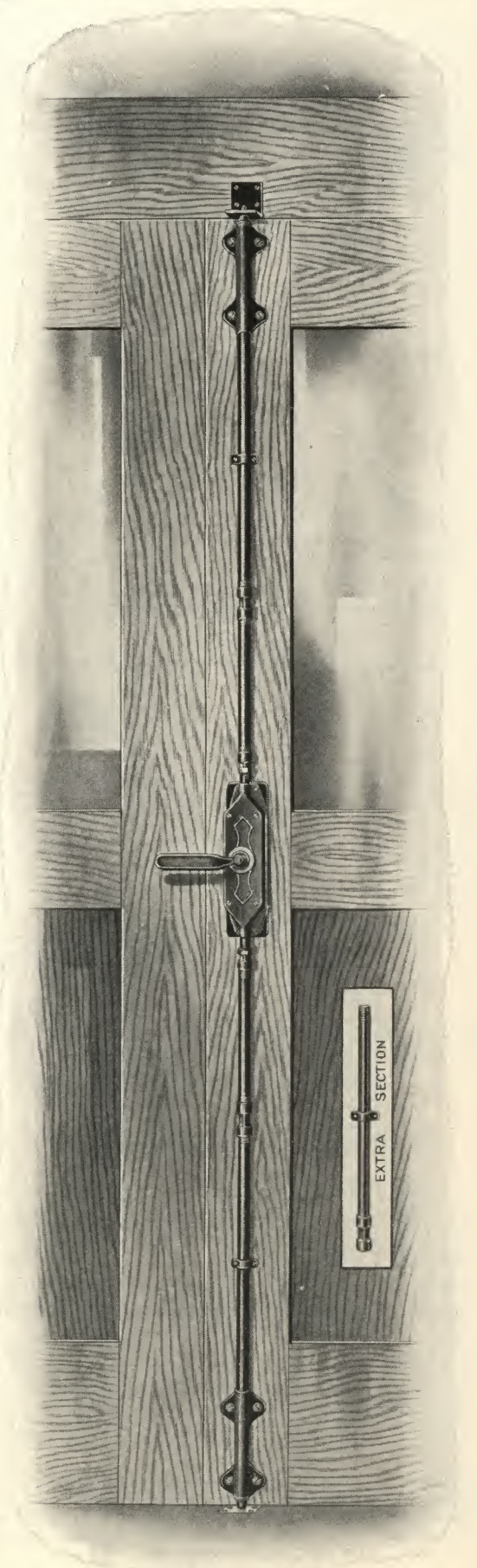
## R-W No. 817 Garage Cremone Bolt

This is an extra heavy bolt, designed for large heavy doors. Made in three principal sections; the center or locking section and the top and bottom or adjustable bolt section, the three sections being united by tubing about  $\frac{7}{8}$  inch in diameter. The bolt will retain its position positively, either locked or unlocked—cannot be opened by jarring. It is made of steel, finished in black enamel. Complete bolt for single or double "Slidetite" or hinged doors swinging inside of building, is packed regularly in a neat and compact metal-edged fibre-board box. Bolt as regularly packed is adjustable for doors up to 10' high. Extra sections 18" long furnished as ordered for higher doors. The patented Bottom Keeper is made with lug against which the outside surface of the door strikes so that the bolt will always be in line with the opening in the keeper when the door is pushed tightly shut. Adjustable for different thicknesses of doors. Can only be used on out-opening doors when special keepers are furnished. The top and bottom sections are 9 inches long and  $3\frac{1}{2}$  inches wide. Extra flat bottom keeper included, so that the doors may be locked in open position. Movement of bolt is  $1\frac{1}{4}$  inches in each direction. 6 inches adjustment is provided in top and bottom sections. Permanent adjustment is made when bolt is applied to the door. This bolt has an extra long operating handle. The base plate of the center section is  $12\frac{3}{4}$  inches long by  $3\frac{3}{8}$  inches wide. Maximum extension from surface of door is  $2\frac{3}{4}$  inches. Weight, each  $17\frac{1}{2}$  lbs.

### List Price

R-W No. 817 Bolt, packed complete as above, adjustable for doors up to 10' high, each.....	\$12.00
Extra 18" sections for higher Doors, each.....	1.00

Discount.....





## R-W No. 435 Tie Rod with Pintle and Pin

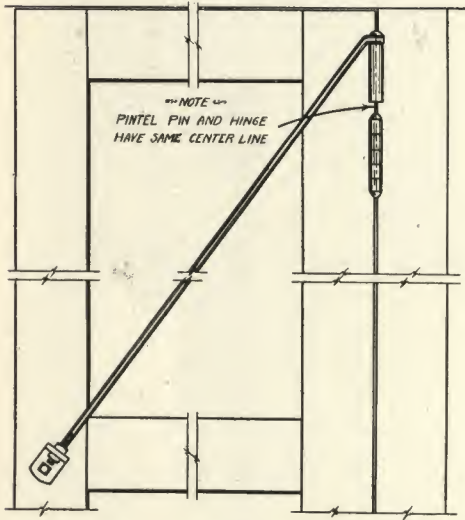


Fig. A-1991—No. 435-1,-2,-3 or -4 Tie Rod and Pintle A used with Butt Hinge on Door.

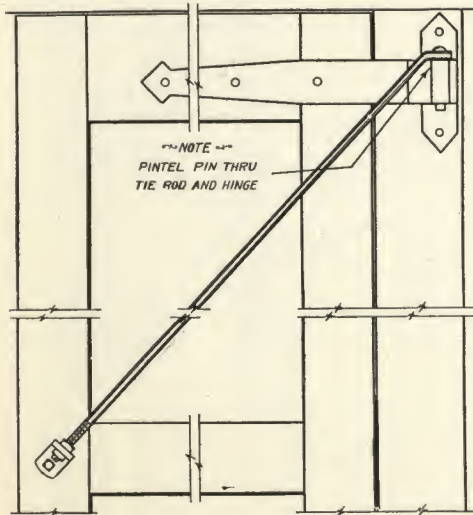


Fig. A-1992—No. 435-11,-12,-13 or -14 Tie Rod, without pintle used with 1035 Hinge.

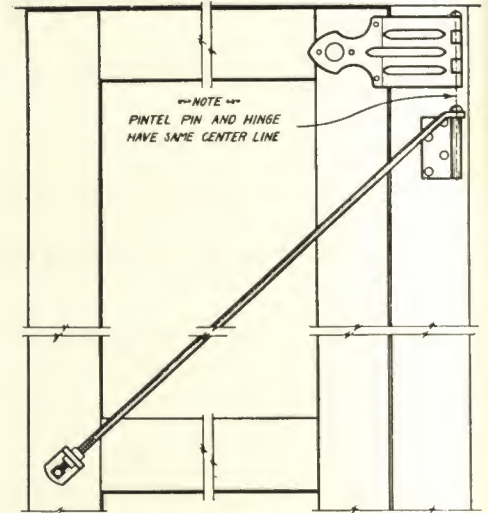
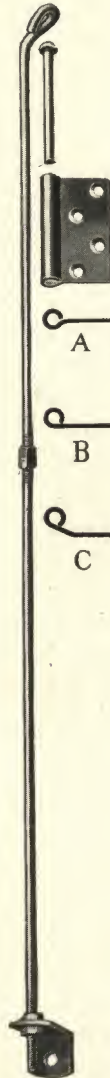


Fig. A-1993—No. 435-1,-2,-3 or -4 Tie Rod and Pintle B, used with No. 311 Hinge.

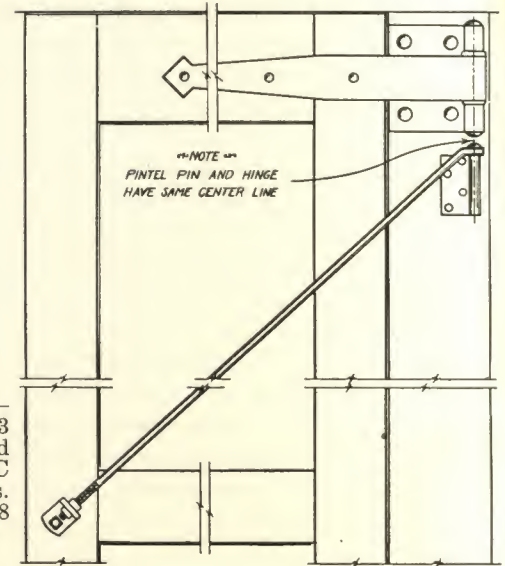


Fig. A-1994—No. 435-1,-2,-3 or -4 Tie Rod and Pintle C used with Nos. 1037 and 1038 Hinges.

Nos. 435-1, 2, 3 and 4 Tie Rods are made with an eye to take a  $\frac{3}{8}$  inch pintle pin, and are furnished with pintles A, B or C as requested. Pintle A is used when doors are mounted with butts, pintle B is used when doors are mounted with No. 311 hinges, illustrated on page 484, and pintle C is used when doors are mounted with No. 1037 or No. 1038 hinges, illustrated on page 487.

Nos. 435-11, -12, -13 and -14 Tie Rods are furnished with eyes to take a  $\frac{1}{2}$  inch pintle pin. Pintles and pintle pins are not furnished. These sizes are designed especially for use with our 1035 Hinges, illustrated on page 486.

### List Price

No. 435-1—Tie Rod, 34 inches long, (for doors 23" to 29" wide), with pintle (A or B) and pintle pin, complete .....	\$1.30
No. 435-2—Tie Rod, 42 inches long, (for doors 30" to 36" wide), with pintle (A or B) and pintle pin, complete .....	1.50
No. 435-3—Tie Rod, 51 inches long, (for doors 37" to 42" wide), with pintle (A or B) and pintle pin, complete .....	1.70
No. 435-4—Tie Rod, 59 inches long, (for doors 43" to 48" wide), with pintle (A or B) and pintle pin, complete .....	1.90
No. 435-11—Tie Rod, 34 inches long, (for doors 23" to 29" wide), without pintle or pin, complete .....	1.30
No. 435-12—Tie Rod, 42 inches long, (for doors 30" to 36" wide), without pintle or pin, complete .....	1.50
No. 435-13—Tie Rod, 51 inches long, (for doors 37" to 42" wide), without pintle or pin, complete .....	1.70
No. 435-14—Tie Rod, 59 inches long, (for doors 43" to 48" wide), without pintle or pin, complete .....	1.90

Discount .....



## R-W No. 159 Tie Rod

These Tie Rods are made in two diameters,  $\frac{1}{2}$  inch and  $\frac{3}{4}$  inch. Furnished in lengths ranging in feet from 4 feet to 16 feet long.

### List Price

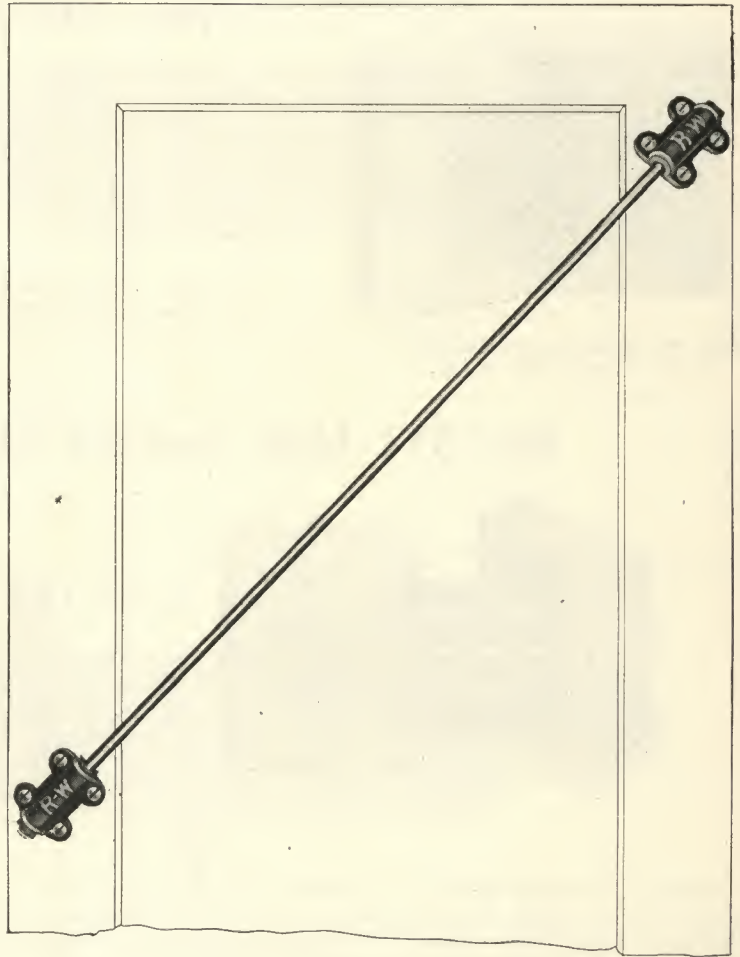
#### $\frac{1}{2}$ " Diameter

4 feet long. Wt.  $4\frac{1}{2}$  lbs. Complete..... \$4.00  
Per additional foot. Wt.  $\frac{5}{8}$  lb. Price..... .60

#### $\frac{3}{4}$ " Diameter

4 feet long. Wt. 9 lbs. Complete..... \$6.00  
Per additional foot. Wt.  $1\frac{1}{2}$  lbs. Price.... 1.00

Discount.....



## R-W No. 135 Butt Hinge

### List Price per Pair

Size of Butts, Inches	Thickness of Doors, Inches	Steel, Dull Black, Per Pair	Steel, Dull Brass Plated, Per Pair	Solid Brass, Brush Finish, Per Pair
3 x3	$1\frac{3}{8}$	\$0.41	\$0.48	\$4.22
$3\frac{1}{2}$ x $3\frac{1}{2}$	$1\frac{3}{4}$	.43	.50	4.77
4 x4	$2, 2\frac{1}{4}$	.55	.64	5.90
5 x5	$2\frac{1}{2}$	1.36	1.60	6.12

Discount.....

## R-W No. 341 Surface Hinge with Back Plates

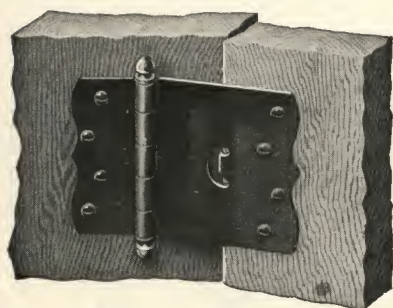
Made in one size only,  $3\frac{1}{2}$ " x 5". Beveled edges. Back Plates on opposite side of door. Hinge and back plates attached to door by machine screws, on both sides, which enter sleeve nuts, which are set into the door. Sleeve nuts and screws furnished with the hinges. Packed 1 pair in package. Weight per pair, 6 pounds. State thickness of door when ordering.

### List Price Per Pair

Steel, black finish..... \$4.50  
Steel, brass plated..... 7.00  
Solid Brass..... 9.00

Discount.....





No. 635 Garage Door Equipment shown on pages 133 to 138.

## No. 635 Wrought Steel Surface Hinges

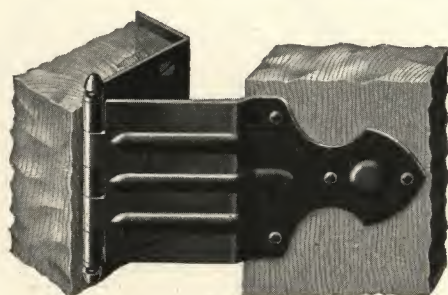
For use where doors are hinged together and run around an inside corner on curved track. Made of 12-gauge wrought steel in two sizes; No. 635-4" has one leaf 2" long and one leaf 4" long; No. 635-5" has one leaf 3½" long and one leaf 5½" long. Packed one pair in a box; No. 635-4" with screws; No. 635-5" with round head stove bolts, long enough for a door 2½" thick. Finish, black enamel.

### List Price

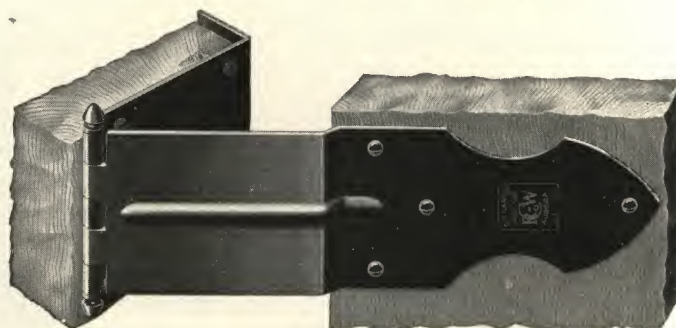
No. 635—4-inch Surface Hinge.	Shipping weight, 2 lbs.	Per pair.....	\$1.20
No. 635—5-inch Surface Hinge.	Shipping weight, 5 lbs.	Per pair.....	1.80

Discount.....

## No. 311 Half Surface Ornamental Butt Hinges



No. 311—8½"



No. 311—14"

Made of wrought steel, in two sizes, both 4" high. The length of the long leaves is 8½" and 14" respectively. Center of hinge pin on the 8½" size is 3¾" from the edge of the jamb and the hinge extends 4½" on the face of the door. This gives sufficient offset to allow 2 doors, each 1¾" thick, to stand flush with the jamb when opened at a 90 degree angle. Center of hinge pin on the 14" size is 5¾"

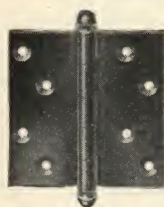
from the jamb and this hinge extends 8¼" on the face of the door. This gives sufficient offset to allow 3 doors, each 1¾" thick, to stand flush with the jamb when opened at a 90 degree angle. This hinge is used with No. 435x31 Slidetite Garage Door Sets, see pages 80 to 100. Packed one pair in a box with screws. Finish, black enamel.

### List Price

No. 311-8½"—Half Surface Hinge.	Shipping weight, 3¾ lbs.	Per pair.....	\$1.60
No. 311-14"—Half Surface Hinge.	Shipping weight, 6¾ lbs.	Per pair.....	2.00

Discount.....

## No. 435 Butt Hinge



Made of wrought steel in two sizes: 4"x4", twelve gauge, weight 1½ lbs., per pair; and 5"x5", 12-gauge, wt. 2 lbs., per pair. Has loose pintle pin. Butts are measured overall with the leaves open. Finish, black enamel. Packed 1 pr. in a box with screws.

### List Price

No. 435—Butt Hinge, size 4"x4", pair.	\$ .60
No. 435—Butt Hinge, size 5"x5", pair.	1.00

See pages 80 to 100 for 435 Slidetite Garage Door Equipment.

Discount.....

## No. 312 Butt Hinge



Made in one size only, 2½"x2½" but furnished in three finishes No. 1 of 14-gauge solid brass; No. 2 of 14-gauge steel, brass plated; No. 3 of 14-gauge steel, finish, black enamel. Loose Pintle Pin. Packed one pair wrapped with screws. Weight, per pair, one-half pound.

### List Price

No. 312—Finish No. 1.	Per pair.....	\$2.60
No. 312—Finish No. 2.	Per pair.....	.60
No. 312—Finish No. 3.	Per pair.....	.60

See pages 18 to 23 for No. 312 Air-Way Window Hardware.

Discount.....

## No. 436 Butt Hinge



Made especially for use with No. 436 Garage Door Sets, see page 117. Of 12-gauge wrought steel. One size only, 4"x4". Has round head loose pin. Finish, black enamel. Weight, 1½ lbs., per pair. Wrapped one pair with screws.

### List Price

No. 436—Butt Hinge.	Per pair... \$	.60
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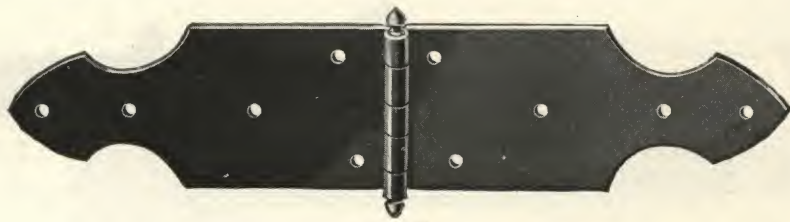
Discount.....



## No. 435 Wrought Steel Surface Hinges



2 1/2"x4" 3 1/2"x5" 4"x7"



12"x4"

Made in four sizes: 2 1/2" x 4", of 12 gauge steel; 3 1/2" x 5", of 12 gauge steel; 4" x 7", of 12 gauge steel; 12" x 4", of 10 gauge steel. Packed one pair in a box; the 2 1/2" x 4" size with screws; the other three sizes with round head stove bolts, long enough for a door 2 1/2" thick. Finish, black enamel.

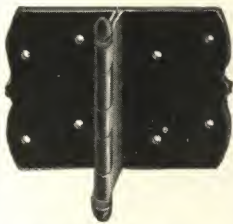
### List Price

No. 435—Size 2 1/2" x 4".	Shipping Weight, 1 1/2 lbs.	Per pair.....	\$0.80
No. 435—Size 3 1/2" x 5".	Shipping Weight, 4 lbs.	Per pair.....	1.40
No. 435—Size 4" x 7".	Shipping Weight, 6 lbs.	Per pair.....	1.70
No. 435—Size 12" x 4".	Shipping Weight, 8 3/4 lbs.	Per pair.....	2.20

435 Slidetite Garage Door Equipment shown on Pages 80 to 109

Discount.....

## No. 636 Wrought Steel Offset Surface Hinges



2 1/2"x4" 3 1/2"x5" 4"x7"



12"x4"

This hinge is furnished in four sizes: 2 1/2" x 4", 3 1/2" x 5", 4" x 7", 12" x 4". The three smaller sized hinges are made from No. 12 gauge wrought steel; the largest or 12" x 4" sized hinge from No. 10 gauge wrought steel. Hinge eye is offset 3/4" to allow 1 1/2" between the doors when folded. Packed one pair in a box; the smallest size with screws; the three larger sizes with round head stove bolts, long enough for a door 2 1/2" thick. Finish, black enamel.

### List Price

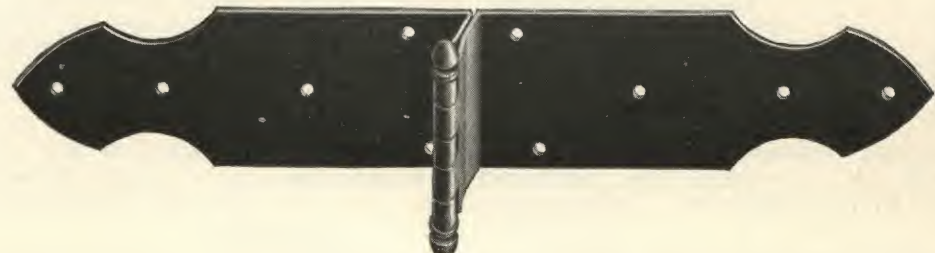
No. 636—Size 2 1/2" x 4".	Shipping Weight, 2 lbs.	Per pair.....	\$0.90
No. 636—Size 3 1/2" x 5".	Shipping Weight, 5 lbs.	Per pair.....	1.50
No. 636—Size 4" x 7".	Shipping Weight, 6 1/2 lbs.	Per pair.....	1.90
No. 636—Size 12" x 4".	Shipping Weight, 9 1/4 lbs.	Per pair.....	2.60

Discount.....

## No. 836 Wrought Steel Offset Surface Hinges



2 1/2"x4" 3 1/2"x5" 4"x7"



12"x4"

Made in four sizes: 2 1/2" x 4", of 12 gauge steel; 3 1/2" x 5" of 12 gauge steel; 4" x 7" of 12 gauge steel; 12" x 4", of 10 gauge steel. Hinge eye is offset 1 1/2" to allow 3" between doors when folded. Packed one pair in a box; the 2 1/2" x 4" with screws; the larger sizes with round head stove bolts, long enough for a door 2 1/2" thick. Finish, black enamel.

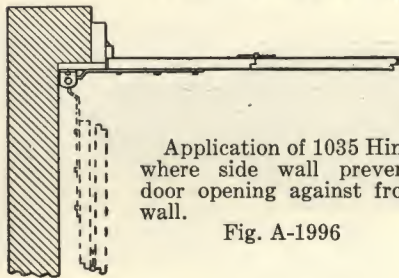
### List Price

No. 836—Size 2 1/2" x 4".	Shipping Weight, 2 lbs.	Per pair.....	\$1.00
No. 836—Size 3 1/2" x 5".	Shipping Weight, 5 lbs.	Per pair.....	1.60
No. 836—Size 4" x 7".	Shipping Weight, 7 1/4 lbs.	Per pair.....	2.30
No. 836—Size 12" x 4".	Shipping Weight, 9 1/4 lbs.	Per pair.....	3.00

Discount.....

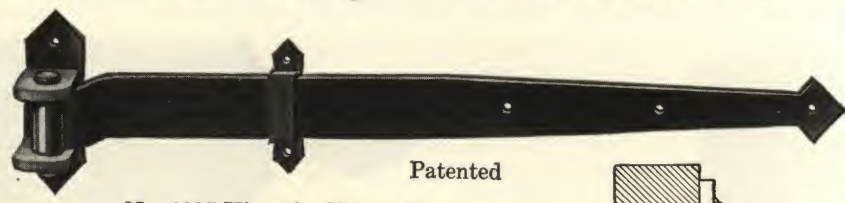


## No. 1035 Heavy Offset Hinge with Surface Pintle



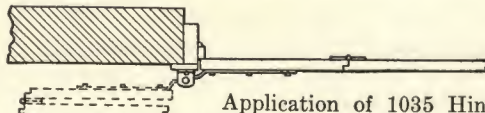
Application of 1035 Hinge where side wall prevents door opening against front wall.

Fig. A-1996



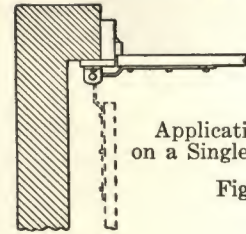
Patented

No. 1035 Hinge for Heavy Service



Application of 1035 Hinge where there is space sufficient to fold back the doors parallel with the front wall.

Fig. A-1997



Application of 1035 Hinge on a Single Swinging Door.

Fig. A-1998

Designed especially for garage doors, warehouse doors, factory doors and other heavy doors. Pintle can be set far enough from edge of opening so any number of doors will clear the opening when standing at right angles to doorway. 18-inch and 24-inch straps, made of  $\frac{1}{4}$ -inch wrought steel, 30-inch and 36-inch straps, made of  $\frac{5}{16}$ -inch wrought steel, 2 $\frac{1}{2}$  inches high. Furnished with an adjust-

able clip which can be bolted to the door near the edge regardless of the distance the pintle is set beyond the jamb.

Pintle is 2 $\frac{1}{2}$  inches wide with loose pin,  $\frac{1}{2}$  inch in diameter. Bolt holes are  $\frac{9}{16}$  inches in diameter and 5 $\frac{1}{2}$ -inch centers.

Packed in bulk or one pair in a box, with  $\frac{3}{8}$ -inch by 3 $\frac{1}{4}$ -inch carriage bolts. Black japan finish.

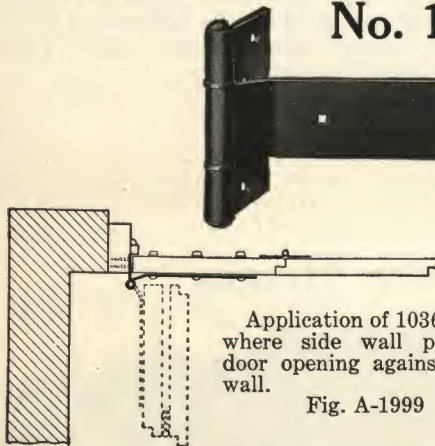
### List Price

Size of Strap	Packed in Box with Carriage Bolts	Packed in Bulk without Carriage Bolts	Shipping Weight Pounds
18 inches x 2 $\frac{1}{2}$ inches, per pair	\$4.00	\$3.70	16
24 inches x 2 $\frac{1}{2}$ inches, per pair	4.50	4.20	18
30 inches x 2 $\frac{1}{2}$ inches, per pair	5.00	4.70	20
36 inches x 2 $\frac{1}{2}$ inches, per pair	5.50	5.10	22
42 inches x 2 $\frac{1}{2}$ inches, per pair	6.00	5.70	24
48 inches x 2 $\frac{1}{2}$ inches, per pair	6.50	6.30	26

See pages 81 to 109 for 1035 Garage Door Equipment.

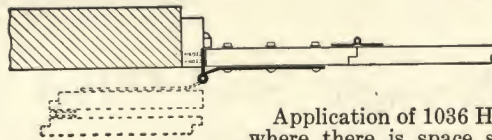
Discount.....

## No. 1036 Heavy Strap Hinge with Mortise Pintle



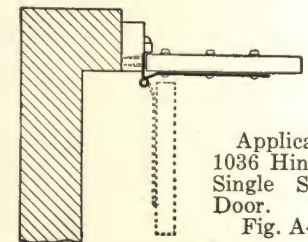
Application of 1036 Hinge where side wall prevents door opening against front wall.

Fig. A-1999



Application of 1036 Hinge where there is space sufficient to fold back the doors parallel with the front wall.

Fig. A-2000



Application of 1036 Hinge on a Single Swinging Door.

Fig. A-2001

Designed especially for large swing doors. Made of wrought steel, in various sizes. Anti-friction washer and  $\frac{1}{2}$ -inch Riveted Pintle Pin. Black japan finish.

Packed in bulk or one pair in box with  $\frac{5}{16}$ -inch by 3 $\frac{1}{4}$ -inch Carriage Bolts for sizes up to 24 inch and  $\frac{3}{8}$ -inch by 3 $\frac{1}{4}$ -inch for sizes over 24 inches.

### List Price

Size of Strap	Height of Pintle	Unit	Packed in Box with Carriage Bolts	Packed in Bulk without Carriage Bolts	Shipping Weight, Pounds
10 inches x 2 $\frac{1}{2}$ inches	6 inches	Per Pair	\$3.40	\$3.20	6 $\frac{1}{2}$
12 inches x 2 $\frac{1}{2}$ inches	6 inches	Per pair	3.50	3.30	7
18 inches x 2 $\frac{1}{2}$ inches	6 inches	Per pair	3.80	3.50	8 $\frac{1}{2}$
24 inches x 2 $\frac{1}{2}$ inches	6 inches	Per pair	4.30	4.00	10
30 inches x 3 inches	7 inches	Per pair	4.80	4.50	15
36 inches x 3 inches	7 inches	Per pair	5.40	5.00	18

Discount.....



## R-W No. 1037 Reverse Pad Heavy Offset Strap Hinges

Designed especially for heavy garage doors. For use where it is desirable to swing a pair of folding doors clear of the jambs. The 18" and 24" straps are made of  $\frac{1}{4}$ " steel, the 30" and 36" straps of  $\frac{5}{16}$ " steel. All hinges are  $2\frac{1}{2}$ " wide. Pintle is 6" high. Center of the hinge pin is 5" from the edge of the jamb. The end of the pintle is bent  $1\frac{5}{8}$ " long, to be mortised into the jamb. Riveted pintle pin measures  $\frac{1}{2}$ " in diameter. Packed in bulk or 1 pair in box with  $\frac{3}{8}$ " x  $3\frac{1}{4}$ " carriage bolts for hinge strap, and flat head wood screws for pintle. Finish, black japan.

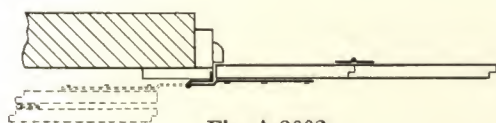


Fig. A-2002

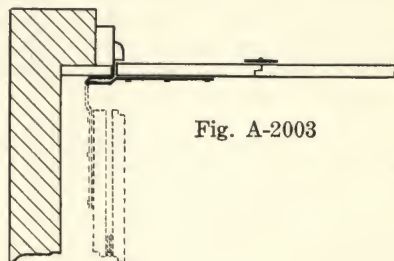


Fig. A-2003

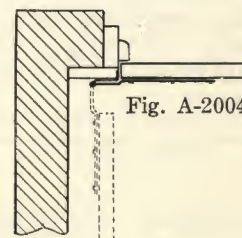


Fig. A-2004

### List Price

Catalog Number	Size of Strap	Height of Pintle	Unit	Shipping Weight, Pounds	Packed in Bulk without Carriage Bolts	Packed in Box with Carriage Bolts
1037.....	18"x2 $\frac{1}{2}$ "	6"	Per Pair	10 $\frac{1}{2}$	\$4.00	\$4.30
1037.....	24"x2 $\frac{1}{2}$ "	6"	Per Pair	13	4.50	4.80
1037.....	30"x2 $\frac{1}{2}$ "	6"	Per Pair	17 $\frac{1}{2}$	5.00	5.30
1037.....	36"x2 $\frac{1}{2}$ "	6"	Per Pair	21	5.40	5.80

Discount.....

## R-W No. 1038 Reverse Pad Heavy Offset Strap Hinges

Designed especially for heavy garage doors. For use where it is desirable to swing three folding doors clear of the jambs. The 18" and 24" straps are made of  $\frac{1}{4}$ " steel, the 30" and 36" straps of  $\frac{5}{16}$ " steel. All hinges are  $2\frac{1}{2}$ " wide. Pintle is 6" high. Center of the hinge pin is  $7\frac{1}{2}$ " from the edge of the jamb. The end of the pintle is bent  $1\frac{5}{8}$ " long, to be mortised into the jamb. Riveted pintle pin measures  $\frac{1}{2}$ " in diameter. Packed in bulk or 1 pair in box with  $\frac{3}{8}$ " x  $3\frac{1}{4}$ " carriage bolts for hinge straps, and flat head wood screws for pintle. Finish, black japan.

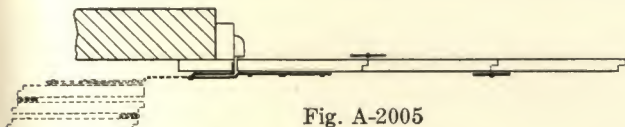


Fig. A-2005

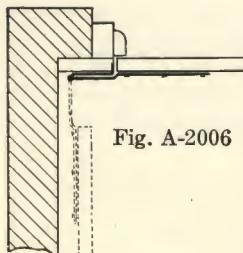


Fig. A-2006

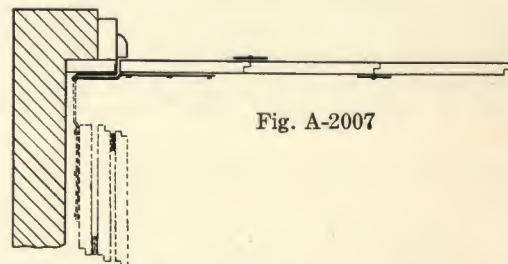


Fig. A-2007

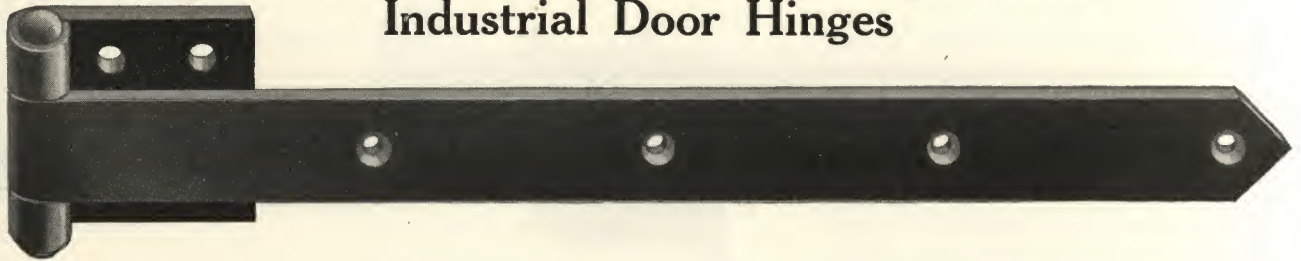
### List Price

Catalog Number	Size of Strap	Height of Pintle	Unit	Shipping Weight, Pounds	Packed in Bulk without Carriage Bolts	Packed in Box with Carriage Bolts
1038.....	18"x2 $\frac{1}{2}$ "	6"	Per Pair	11	\$4.25	\$4.50
1038.....	24"x2 $\frac{1}{2}$ "	6"	Per Pair	14	4.75	5.00
1038.....	30"x2 $\frac{1}{2}$ "	6"	Per Pair	19	5.25	5.50
1038.....	36"x2 $\frac{1}{2}$ "	6"	Per Pair	23	5.75	6.00

Discount.....



## No. 434-A Reversible Pad Straight Strap Industrial Door Hinges



This hinge was produced for use on heavy single doors or with R-W No. 434 Hardware using wood doors, pintle being **mortised into the jamb**. Made of heavy strap stock:  $\frac{3}{8}$ " x  $2\frac{1}{2}$ ";  $\frac{3}{8}$ " x 3";  $\frac{1}{2}$ " x 3". Length according to requirements. Bolt holes are made to match the bolt

holes in hinges numbered 434-J, and 434-K, as shown on page 491. Pintles are made of 5" stock when used with hinges  $2\frac{1}{2}$ " wide or of 6" stock when used with hinges 3" wide. Hinge Pins for  $2\frac{1}{2}$ " straps are  $\frac{3}{4}$ " in diameter and for 3" straps are 1" in diameter. Finish, black japan.

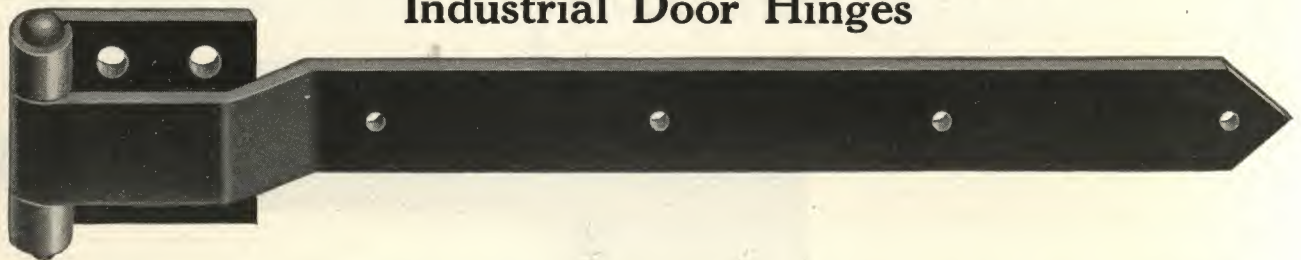
### List Price

Catalog Number	Length of Strap	Size of Strap $\frac{3}{8}$ "x $2\frac{1}{2}$ "		Size of Strap $\frac{3}{8}$ "x3"		Size of Strap $\frac{1}{2}$ "x3"	
		Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair
434-A	Up to 3'	34	\$ 9.60	39	\$10.80	48	\$14.40
434-A	3'1" to 4'	42	10.50	47	12.00	56	15.60
434-A	4'1" to 5'	50	11.40	55	13.20	64	16.80
434-A	5'1" to 6'	58	12.30	63	14.40	72	18.00

**Note**—The above hinges are always built special, as required. When ordering be sure to furnish us with a sketch of the jamb and doors or the exact length of the hinges. Bolts for attaching the hinges to the doors will be furnished with the hinges providing the thickness of the doors is stated on the order. Pintle Bolts when ordered are furnished at an extra price.

Discount.....

## No. 434-B Reverse Pad Offset Strap Industrial Door Hinges



This hinge is intended for use on heavy single doors or with R-W No. 434 Hardware using wood doors, pintle being **attached to the face of the jamb**. Made of heavy strap stock:  $\frac{3}{8}$ " x  $2\frac{1}{2}$ ";  $\frac{3}{8}$ " x 3";  $\frac{1}{2}$ " x 3". Length according to requirements. Bolt holes are made to match the

bolt holes in hinges numbered 434-J and 434-K, as shown on page 491. Pintles are made of 5" stock when used with hinges  $2\frac{1}{2}$ " wide, or of 6" stock when used with hinged 3" wide. Hinge Pins for  $2\frac{1}{2}$ " straps are  $\frac{3}{4}$ " in diameter and for 3" straps are 1" in diameter.

### List Price

Catalog Number	Length of Strap	Size of Strap $\frac{3}{8}$ "x $2\frac{1}{2}$ "		Size of Strap $\frac{3}{8}$ "x3"		Size of Strap $\frac{1}{2}$ "x3"	
		Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair
434-B	Up to 3'	34 $\frac{1}{2}$	\$10.80	39 $\frac{1}{2}$	\$12.00	48 $\frac{1}{2}$	\$15.60
434-B	3'1" to 4'	42 $\frac{1}{2}$	11.70	47 $\frac{1}{2}$	13.20	56 $\frac{1}{2}$	16.80
434-B	4'1" to 5'	50 $\frac{1}{2}$	12.60	55 $\frac{1}{2}$	14.40	64 $\frac{1}{2}$	18.00
434-B	5'1" to 6'	58 $\frac{1}{2}$	13.50	63 $\frac{1}{2}$	15.60	72 $\frac{1}{2}$	19.20

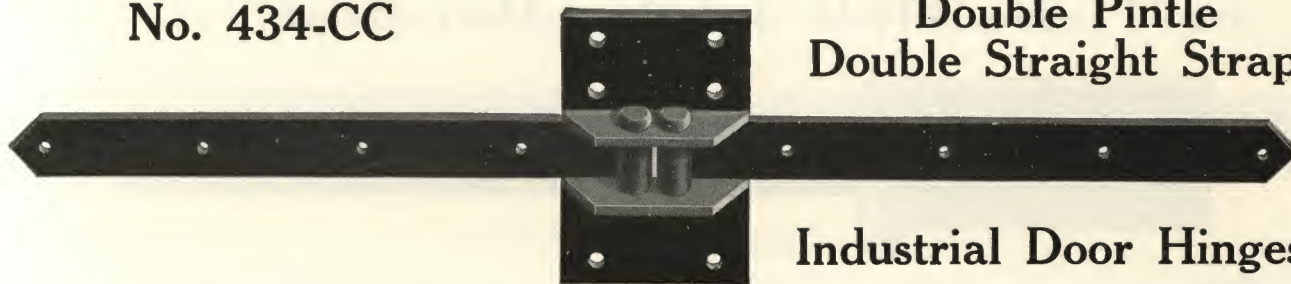
**Note**—The above hinges are always built special, as required. When ordering be sure to furnish us with a sketch of the jamb and doors or the exact length of the hinges. Bolts for attaching the hinges to the doors will be furnished with the hinges providing the thickness of the doors is stated on the order. Pintle Bolts when ordered are furnished at an extra price.

Discount.....



## No. 434-CC

## Double Pintle Double Straight Strap



## Industrial Door Hinges

The purpose of this hinge is for use with very heavy single swinging doors, or No. 434 installations using wood doors, pintle being **attached to steel frames**. Made of heavy strap stock:  $\frac{3}{8}$ " x  $2\frac{1}{2}$ ";  $\frac{3}{8}$ " x 3";  $\frac{1}{2}$ " x 3". Length according to requirements. Bolt holes are made to match

the bolt holes in hinges numbered 434-J and 434-K, as shown on page 491. Pintles are always made to special details according to the requirements of each case. Illustration shows one pair of hinges.

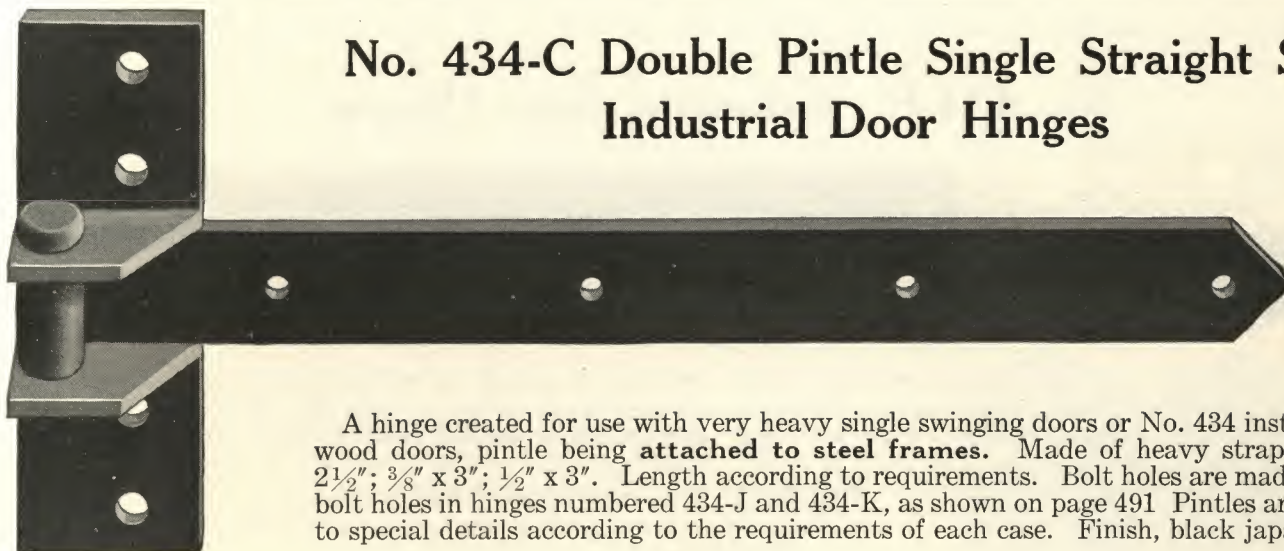
### List Price

Catalog Number	Length of Each Strap	Size of Strap $\frac{3}{8}$ "x $2\frac{1}{2}$ "		Size of Strap $\frac{3}{8}$ "x3"		Size of Strap $\frac{1}{2}$ "x3"	
		Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair
434-CC	Up to 3'	27	\$10.80	31	\$12.00	40	\$15.60
434-CC	3'1" to 4'	33	11.70	39	13.20	49	16.80
434-CC	4'1" to 5'	39	12.60	47	14.40	58	18.00
434-CC	5'1" to 6'	45	13.50	55	15.60	67	19.20

**Note**—The above hinges are always built special, as required. When ordering be sure to furnish us with a sketch of the jamb and doors or the exact length of the hinges. Bolts for attaching the hinges to the doors will be furnished with the hinges providing the thickness of the doors is stated on the order. Pintle Bolts when ordered are furnished at an extra price.

**Discount**.....

## No. 434-C Double Pintle Single Straight Strap Industrial Door Hinges



A hinge created for use with very heavy single swinging doors or No. 434 installations using wood doors, pintle being **attached to steel frames**. Made of heavy strap stock:  $\frac{3}{8}$ " x  $2\frac{1}{2}$ ";  $\frac{3}{8}$ " x 3";  $\frac{1}{2}$ " x 3". Length according to requirements. Bolt holes are made to match the bolt holes in hinges numbered 434-J and 434-K, as shown on page 491. Pintles are always made to special details according to the requirements of each case. Finish, black japan.

### List Price

Catalog Number	Length of Each Strap	Size of Strap $\frac{3}{8}$ "x $2\frac{1}{2}$ "		Size of Strap $\frac{3}{8}$ "x3"		Size of Strap $\frac{1}{2}$ "x3"	
		Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair
434-C	Up to 3'	27	\$10.80	31	\$12.00	40	\$15.60
434-C	3'1" to 4'	33	11.70	39	13.20	49	16.80
434-C	4'1" to 5'	39	12.00	47	14.40	58	18.00
434-C	5'1" to 6'	45	13.50	55	15.60	67	19.20

**Note**—The above hinges are always built special, as required. When ordering be sure to furnish us with a sketch of the jamb and doors or the exact length of the hinges. Bolts for attaching the hinges to the doors will be furnished with the hinges providing the thickness of the door is stated on the order. Pintle Bolts when ordered are furnished at an extra price.

**Discount**.....



## No. 434-D Industrial Door Hinges



Designed for use with very heavy single swinging doors or for No. 434 installations using wood doors. Pintle to be attached to brick or masonry and to the **face of the wall**. Made of heavy strap stock:  $\frac{3}{8}$ " x  $2\frac{1}{2}$ ";  $\frac{3}{8}$ " x 3";  $\frac{1}{2}$ " x 3". Length according to requirements. Bolt holes are made to match the bolt holes in hinges numbered 434-J and 434-K,

as shown on page 491. Pintles are made of 5" stock when used with hinges  $2\frac{1}{2}$ " wide, or of 6" stock when used with hinges 3" wide. Hinge Pins for  $2\frac{1}{2}$ " straps are  $\frac{3}{4}$ " in diameter and for 3" straps are 1" in diameter. Finish black japan.

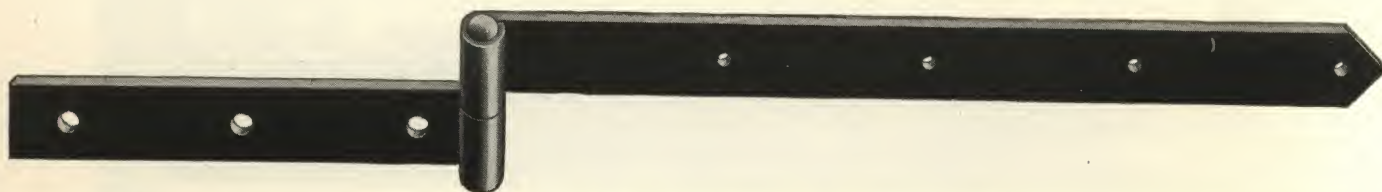
### List Price

Catalog Number	Length of Strap	Size of Strap $\frac{3}{8}$ "x $2\frac{1}{2}$ "		Size of Strap $\frac{3}{8}$ "x3"		Size of Strap $\frac{1}{2}$ "x3"	
		Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair
434-D	Up to 3'	32	\$ 9.60	39	\$10.80	47	\$14.40
434-D	3'1" to 4'	39	10.20	47	12.00	57	15.60
434-D	4'1" to 5'	46	11.40	55	13.20	67	16.80
434-D	5'1" to 6'	53	12.30	63	14.40	77	18.00

**Note**—The above hinges are always built special, as required. When ordering be sure to furnish us with a sketch of the jamb and doors or the exact length of the hinges. Bolts for attaching the hinges to the doors will be furnished with the hinges providing the thickness of the doors is stated on the order. Pintel Bolts when ordered are furnished at an extra price.

Discount.....

## No. 434-E Industrial Door Hinges



Intended for use with very heavy single swinging doors or for No. 434 installations using wood doors. Pintle to be attached to brick or masonry and to the **face of the wall**. Made of heavy strap stock:  $\frac{3}{8}$ " x  $2\frac{1}{2}$ ";  $\frac{3}{8}$ " x 3";  $\frac{1}{2}$ " x 3". Length according to requirements. Bolt holes

are made to match the bolt holes in hinges numbered 434-J and 434-K, as shown on page 491. Pintles are made of the same stock as are the hinge straps. Hinge Pins for  $2\frac{1}{2}$ " straps are  $\frac{3}{4}$ " in diameter and for 3" straps are 1" in diameter. Finish, black japan.

### List Price

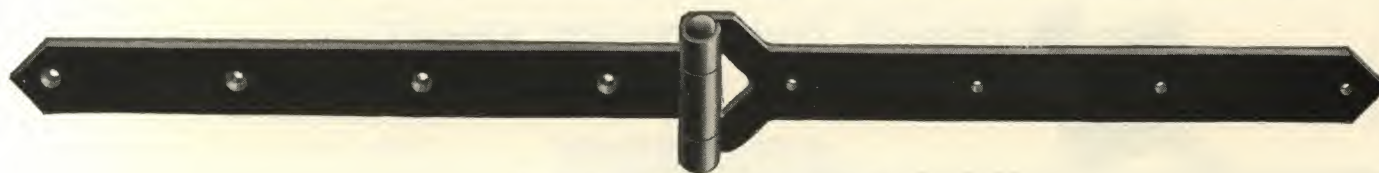
Catalog Number	Length of Strap	Size of Strap $\frac{3}{8}$ "x $2\frac{1}{2}$ "		Size of Strap $\frac{3}{8}$ "x3"		Size of Strap $\frac{1}{2}$ "x3"	
		Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair
434-E	Up to 3'	29	\$ 8.40	36	\$9.60	44	\$14.40
434-E	3'1" to 4'	36	9.30	44	10.80	54	15.60
434-E	4'1" to 5'	43	10.20	52	12.00	64	16.80
434-E	5'1" to 6'	50	11.10	60	13.20	74	18.00

**Note**—The above hinges are always built special, as required. When ordering be sure to furnish us with a sketch of the jamb and doors or the exact length of the hinges. Bolts for attaching the hinges to the doors will be furnished with the hinges providing the thickness of the doors is stated on the order. Pintle Bolts when ordered are furnished at an extra price.

Discount.....



## No. 434-J and K Heavy Hinges for Industrial Doors



No. 434-J Double Strap Flat Hinge



No. 434-K Double Strap Offset Hinge

Nos. 434-J and 434-K were especially designed for use on large folding wood doors: No. 434-J for doors opening **inside** the building: No. 434-K for doors opening **outside** the building. Made of heavy strap stock:  $\frac{3}{8}$ " x  $2\frac{1}{2}$ ";  $\frac{3}{8}$ " x 3";  $\frac{1}{2}$ " x 3". The diameter of the Hinge Pin for the

$2\frac{1}{2}$ " stock is  $\frac{3}{4}$ "; and 1" in diameter for the 3" stock. Bolt holes are punched to match the bolt holes in hinges numbered 434-A, B, C, CC, D and 434-E. Finish, black japan.

### List Price

Catalog Number	Length of Each Strap	Size of Strap $\frac{3}{8}$ "x2"		Size of Strap $\frac{3}{8}$ "x2 $\frac{1}{2}$ "		Size of Strap $\frac{3}{8}$ "x3"		Size of Strap $\frac{1}{2}$ "x3"	
		Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair	Wt., Lbs. Per Pair	Price Per Pair
434-J	Up to 3'	35	18.00	44	\$19.20	53	\$20.40	71	\$22.80
434-J	3'1" to 4'	45	19.20	56	20.40	67	21.60	89	24.00
434-J	4'1" to 5'	50	20.40	68	21.60	82	22.80	110	25.20
434-J	5'1" to 6'	60	21.60	80	22.80	96	24.00	128	26.40
434-K	Up to 3'	35 $\frac{1}{2}$	19.20	44 $\frac{1}{2}$	20.40	53 $\frac{1}{2}$	21.60	71 $\frac{1}{2}$	24.00
434-K	3'1" to 4'	45 $\frac{1}{2}$	20.40	56 $\frac{1}{2}$	21.60	67 $\frac{1}{2}$	22.80	89 $\frac{1}{2}$	25.20
434-K	4'1" to 5'	50 $\frac{1}{2}$	21.60	68 $\frac{1}{2}$	22.80	82 $\frac{1}{2}$	24.00	110 $\frac{1}{2}$	26.40
434-K	5'1" to 6'	60 $\frac{1}{2}$	22.80	80 $\frac{1}{2}$	24.00	96 $\frac{1}{2}$	25.20	128 $\frac{1}{2}$	27.60

**Note**—The above hinges are always built special, as required. When ordering be sure to furnish us with a sketch of the jamb and doors or the exact length of the hinges. Bolts for attaching hinges to the doors will be furnished with the hinges providing the thickness of the doors is stated on the order.

Discount.....

## No. 535 Invisible Hinges

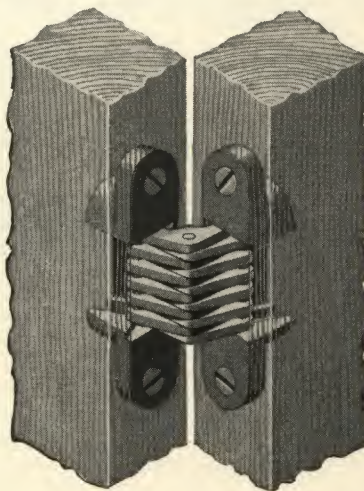
Designed especially for partition doors. When the doors are unfolded and the partition in place, the hinges are invisible from either side of the door.

Furnished in two sizes: **No. 535-116** has a plate which is  $4\frac{3}{8}$ " long and 1" wide. The mortise is  $1\frac{3}{16}$ " deep; **No. 535-120** has a plate which is 5" long and  $1\frac{3}{8}$ " wide. The mortise being  $1\frac{3}{4}$ " deep. The hinges have a brass finish. Are packed one pair in a box with the necessary screws.

### List Price

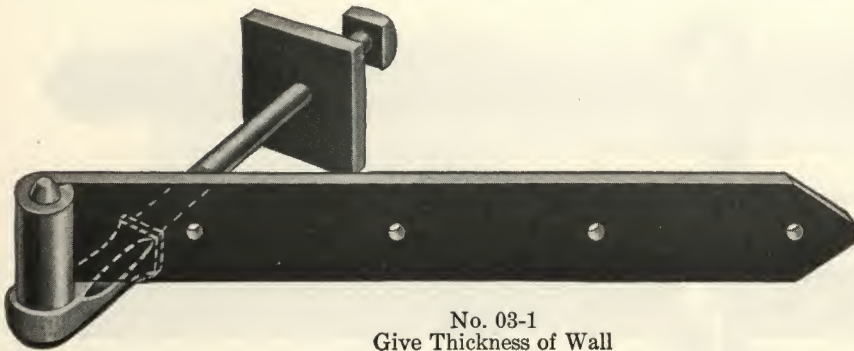
No. 535-116—Invisible Hinge. Weight, per pair,  $2\frac{3}{4}$  lbs. Price, per pair.....\$5.50  
No. 535-120—Invisible Hinge. Weight, per pair,  $5\frac{1}{2}$  lbs. Price, per pair..... 6.50

Discount.....





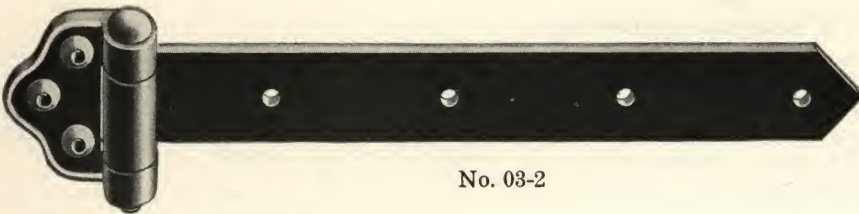
## Heavy Hinges for Fire Doors and Industrial Doors



No. 03-1  
Give Thickness of Wall

### No. 03-1

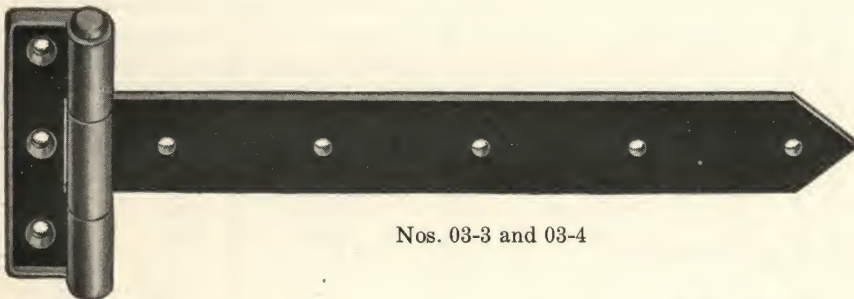
Pintle Heads, malleable iron, with machine bolt to pass through wall. Hinge straps made of steel,  $\frac{3}{8}$  inch thick by  $2\frac{1}{2}$  inches wide. Made for flush and lap doors. When ordering, state thickness of wall and thickness of door. Unless otherwise specified, pintles for lap doors will be sent. Pintle pins  $\frac{3}{4}$  inch diameter.



No. 03-2

### No. 03-2

Pintles, malleable iron,  $4\frac{1}{2}$  inches high,  $3\frac{1}{2}$  inches wide, measuring from center of eye. Hinge straps made of steel,  $\frac{3}{8}$  inch thick by  $2\frac{1}{2}$  inches wide. Pintle pins  $\frac{3}{4}$  inch diameter.



Nos. 03-3 and 03-4

### No. 03-3

Pintles, malleable iron, 7 inches high,  $2\frac{1}{4}$  inches wide, measuring from center of eye. Hinge straps made of steel,  $\frac{5}{16}$  inch thick by  $2\frac{1}{2}$  inches wide. Pintle pins  $\frac{1}{2}$  inch diameter.

Finish, black japan.

### No. 03-4

Pintles, malleable iron, 7 inches high,  $2\frac{3}{8}$  inches wide, measuring from center of eye. Hinge straps made of steel,  $\frac{3}{8}$  by  $2\frac{1}{2}$  inches wide. Pintle pins  $\frac{3}{4}$  inch in diameter.

### List Price

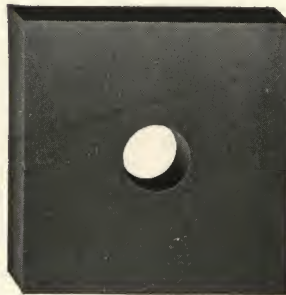
	Wall—12-inch	18-Inch	24-Inch
No. 03-1 Hinges, 15 inches or under (19 lbs.). Per pair.....	\$3.60	\$3.80	\$4.10
No. 03-1 Hinges, 18 inches, (21 lbs.). Per pair.....	3.60	3.80	4.10
No. 03-1 Hinges, 21 inches, (22½ lbs.). Per pair.....	3.70	4.00	4.20
No. 03-1 Hinges, 24 inches, (24 lbs.). Per pair.....	3.80	4.10	4.30
No. 03-1 Hinges, 30 inches, (27 lbs.). Per pair.....	4.20	4.50	4.70
No. 03-1 Hinges, 36 inches, (30 lbs.). Per pair.....	4.50	4.80	5.00
No. 03-1 Hinges, 42 inches, (33 lbs.). Per pair.....	5.00	5.20	5.40
No. 03-1 Hinges, 48 inches, (36 lbs.). Per pair.....	5.30	5.50	5.80
No. 03-2 or No. 03-3 Hinges, 15 inches or under, (16—12 lbs.). Per pair.....			2.65
No. 03-2 or No. 03-3 Hinges, 18 inches, (18—14 lbs.). Per pair.....			2.75
No. 03-2 or No. 03-3 Hinges, 21 inches, (19—15½ lbs.). Per pair.....			2.80
No. 03-2 or No. 03-3 Hinges, 24 inches, (21—17 lbs.). Per pair.....			2.90
No. 03-2 or No. 03-3 Hinges, 30 inches, (24—20 lbs.). Per pair.....			3.25
No. 03-2 or No. 03-3 Hinges, 36 inches, (27—23 lbs.). Per pair.....			3.60
No. 03-2 or No. 03-3 Hinges, 42 inches, (30—26 lbs.). Per pair.....			4.00
No. 03-2 or No. 03-3 Hinges, 48 inches, (33—29 lbs.). Per pair.....			4.30
No. 03-4 Hinges, 15 inches or under, (16 lbs.). Per pair.....			2.65
No. 03-4 Hinges, 18 inches, (18 lbs.). Per pair.....			2.75
No. 03-4 Hinges, 21 inches, (19 lbs.). Per pair.....			2.80
No. 03-4 Hinges, 24 inches, (21 lbs.). Per pair.....			2.90
No. 03-4 Hinges, 30 inches, (24 lbs.). Per pair.....			3.25
No. 03-4 Hinges, 36 inches, (27 lbs.). Per pair.....			3.60
No. 03-4 Hinges, 42 inches, (30 lbs.). Per pair.....			4.00
No. 03-4 Hinges, 48 inches, (33 lbs.). Per pair.....			4.30

Discount.....



# Richards-Wilcox

## R-W No. 366 Heavy Square Steel Washer



### List Price

Diameter of Bolt in Inches	Diameter Hole in Inches	Size, Inches	Thickness, Inches	Price per 100
$\frac{1}{2}$	$\frac{9}{16}$	$2\frac{1}{4} \times 2\frac{1}{4}$	$\frac{3}{16}$	\$ 7.00
$\frac{5}{8}$	$\frac{11}{16}$	3 x 3	$\frac{1}{4}$	11.00
$\frac{3}{4}$	$\frac{13}{16}$	$3\frac{1}{2} \times 3\frac{1}{2}$	$\frac{3}{8}$	12.00

**Note:** Always specify size of bolt. Packed in bulk.

*Discount* .....

## R-W No. 186 Star Drills for Drilling Brick, Concrete and Stone

Self centering cutting edge. Highest grade crucible tool steel. Upset and forged to allow proper degree of clearance on the blades to prevent choking. Every drill guaranteed.



### List Price Each

Length	DIAMETER OF CUTTING EDGE										
	¼-inch	⅝-inch	⅜-inch	⅞-inch	½-inch	⅝-inch	¾-inch	⅞-inch	1-inch	1 ⅝-inch	1 ¼-inch
12.....	\$ .70	\$ .70	\$ .70	\$ .75	\$ .83	\$1.00	\$1.18	\$ 1.34	\$1.50	\$ 1.66	\$1.85
18.....	.87	.87	.87	.96	1.05	1.25	1.46	1.65	1.88	2.10	2.30

*Discount* .....



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